wisy®.de

Rainwater harvesting
The complete System

# Product Catalogue
## Rainwater Harvesting

### For Commerce, Trade, Crafts and Industry

**Edition 20**


*The NEW Sigma rainwater unit (page 22)*

**Now new for all WISY Rainwater Units: Standby Consumption is 50 times less - 0,2 Watt only!**

made in Germany

*Bird's eye view of the production plant in Hitzkirchen.*

*The production shop floor for rainwater filters in Hitzkirchen.*



*Rainwater storage tank production*



*Assembly line for rainwater units.*

### Exporting ideas from Kefenrod to the whole world ...

# WISY rainwater harvesting

WISY AG has its company headquarters in Hitzkirchen, a small town surrounded by meadows and forests within the boundaries of the Vogelsberg nature recreation area in Hesse, Germany.

The company began producing rainwater filters in 1989. Thanks to its unique filtering concept and its success in systematically developing its product range, WISY AG quickly grew to become the leading manufacturer of high-quality rainwater harvesting systems. **WISY is now securely established as a global supplier of rain harvesting products with partners in over 40 countries.** In addition to manufacturing high-quality products, the company has always understood the importance of product-specific training. **In an in-house training centre, more than 10,000 installers and distributors have since received instruction in the fundamental principles of rainwater harvesting.** WISY is a founder member of the German Association for Rainwater Harvesting and also participated in the DIN committees which drew up the currently applicable standards.

**The durability and reliability of its products are a distinctive feature of the WISY brand.**

WISY's products have consequently found use in many thousands of projects around the world, especially where professional rainwater harvesting solutions are required. It is in public buildings in particular - schools, hospitals, and fire stations, for example - that WISY products can guarantee a reliable rainwater supply. Private home owners appreciate the ease of use and the extremely low maintenance requirements of WISY's systems.

**The name WISY is synonymous with quality and durability!**

We wish you a great deal of enjoyment from our products.

Arnold Denk Jan Maurer
Managing Board of WISY AG

## Examples of our reference projects

***Rio de Janeiro:***
*WISY installed 18 large rainwater filters at the Maracana football world cup stadium in Rio de Janeiro. The rainwater is used to irrigate the playing turf and supply water to sanitary facilities. Rainwater is ideal for watering grass playing surfaces at all kinds of sport facilities.*

***Brewery near Nuremberg:***
*Rainwater is collected from this brewery's roof area of around 1200m² and cleansed by 3 WFF 150 vortex filters. The rainwater is stored in a tank with 60 m³ storage capacity and used to cool the beer during the brewing process.*

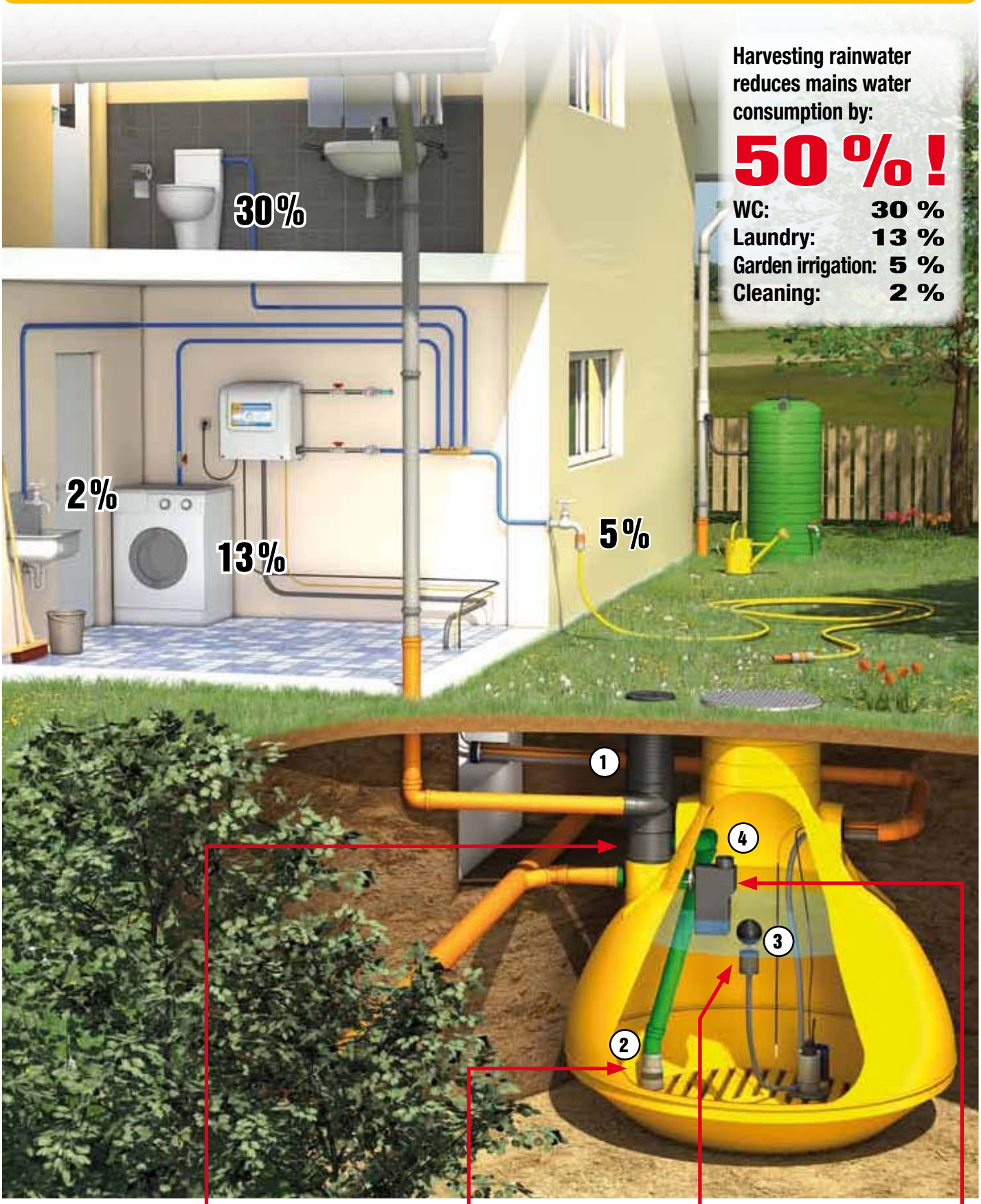
# Table of contents



***Roanoke, Virginia USA:***
*2 WISY WFF 150 vortex fine filters cleanse the rainwater harvested from the roof surface. The filtered water is used directly as extinguishing water to fill the fire engines. It is also used to irrigate the gardens and supply water to sanitary facilities.*

***Single-family home:***
*With 3 downspout/downpipe filters, the rainwater from the roof and annex is cleansed and stored in an underground tank with 5.5m³ storage capacity. The filtered water is drawn out of the tank by the Optima rainwater unit and used to supply water to sanitary facilities and the garden irrigation system.*

# The WISY 4-stage rainwater cleansing principle in the single-family home




Harvesting rainwater reduces mains water consumption by:

**50 %!**

| | |
|---|---|
| WC: | 30 % |
| Laundry: | 13 % |
| Garden irrigation: | 5 % |
| Cleaning: | 2 % |

## Stage 1

Filtering with WISY vortex fine filter with separation of dirt particles and oxygen enrichment

## Stage 2

WISY smoothing inlet prevents resuspension of sediment and distributes the fresh, oxygen-rich water in the storage tank

## Stage 3

Water is extracted with the WISY floating suction filter suspended at the optimum height

## Stage 4

Overflow with skim effect, odour seal, vermin guard and backflow prevention with WISY multisphon

# The WISY filter systems installed in a downspout/downpipe (FS and STFS) or underground (WFF) are an integral component of rainwater harvesting systems.

As a general rule, the roof drain is installed as a „gravity drain system“. The rainwater flows towards the storm drain or soakaway system through gutters, downspouts/downpipes, collecting and underground pipes. It is therefore important to ensure that the cross section of piping in the flow direction of the water is not restricted.
The WISY filter systems installed in the downspout/downpipe or underground pipe guarantee that water can drain safely away from the roof areas of the building.
At the same time, the drainage pipes and the installed filter systems must be dimensioned to handle the flow rates (or „volumetric flow“) of drainage water from the connected roof areas.

## Table indicating the drainage capacity of collecting and underground pipes (in which WISY filter systems are installed) according to DIN EN 12056

| | | |
|---|---|---|
| **Filter collector (FS)** | **for DN 100 (3.9 in.)** | **4.2 l/s** |
| **Standpipe filter collector (STFS)** | **for DN 100 (3.9 in.)** | **4.2 l/s** |
| **Vortex fine filter** | **WFF 100 (3.9 in.)** | **4.2 l/s** |
| **Vortex fine filter** | **WFF 150 (5.9 in.)** | **12.8 l/s** |
| **Vortex fine filter** | **WFF 300 (11.8 in.)** | **80.6 l/s** |

**For horizontal pipes:** The max. flow rates of inflowing water apply when the connecting pipes are installed at a 1% gradient and a max. pipe fill level of 0.7.

***Using the drainage capacity of collecting and underground pipes as a basis, it is also possible to calculate the max. roof area which can be connected to the system. As a basic guide, WISY specifies the approximate size of roof area which can be connected to individual filters. These values apply to climatic conditions in Germany.***

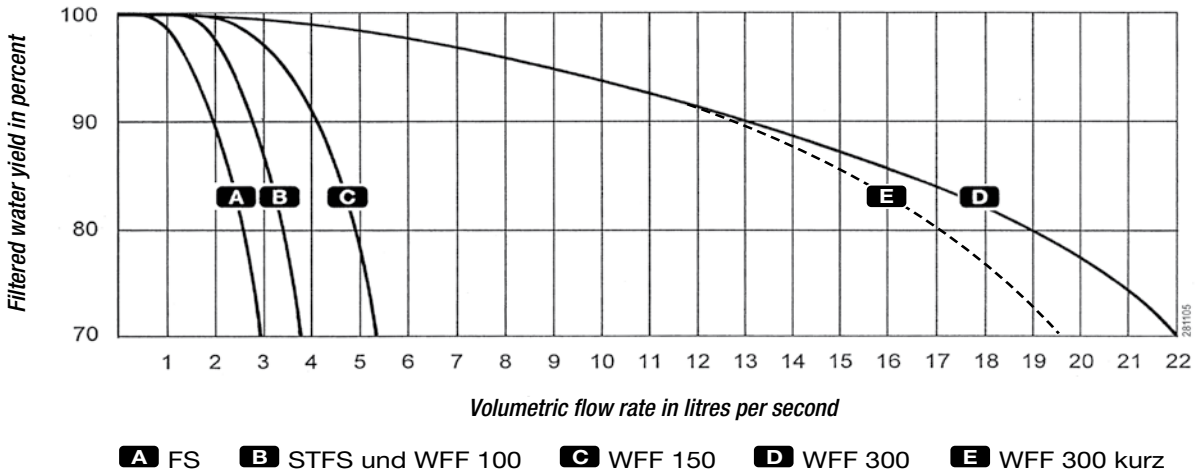
**Important:**
**Special installation measures must be taken when WISY filters are installed in pressure drainage systems. Please contact our technical support for further advice!**

## Efficiency of WISY filter systems

According to WISY‘s own research, the average efficiency (or „hydraulic efficiency“) of WISY‘s filter systems is over 0.9 or 90%, i.e. more than 90% of the water flowing into the filter from the roof is filtered before it flows into the storage tank. The remaining water passes into the storm drain or soakaway system with any dirt particles separated out during the cleansing process.
The specified level of hydraulic efficiency refers to around 99% of all rainfall events in Germany and Central Europe. The filter efficiency is lower (around 40-60%) owing to the increased volumetric flow of water in only about 1% of rainfall events.
The majority of individual rainfall events fill the drainage pipes to less than 0.3 or 30%.

**Example:**
**A building with a projected roof area of 500 m² (5382 sq. ft.) for which a WFF 150 is installed. The volumetric flow of water into the WFF is 2.78 l/s during a rain shower of average intensity, i.e. 5m/m² in 15 minutes (the same as 5 litres/m² in 15 minutes). In the chart below, this flow rate corresponds to a hydraulic efficiency of over 95%.**

*Hydraulic efficiency of WISY filter systems*



# Rainwater filters for installation in downspouts/downpipes (filter collectors)

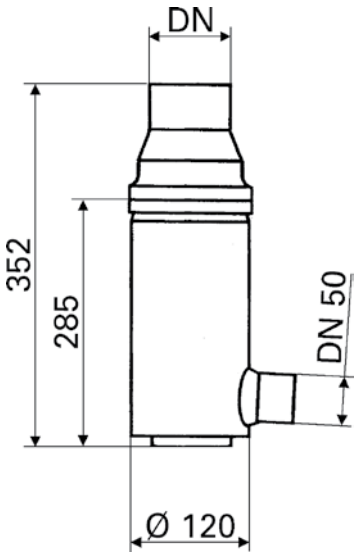

*Filter collector (FS)*

Rainwater filters for installation in downspouts/downpipes made of metal or plastic. Consisting of upper housing, housing pot and filter insert. Housing optionally available in stainless steel *(VA)*, zinc *(ZN)* or copper *(CU)*. Filter insert for all variants made of stainless steel, filter mesh size 0.28 mm (0.01 in.) (basic version) or 0.44 mm (0.02 in.), low maintenance.

It is recommended that the filter be washed in a dishwasher. Outlet to the rainwater storage tank: DN 50.

Drainage safety according to DIN EN 12056 / EN 752, complies with DIN 1989.

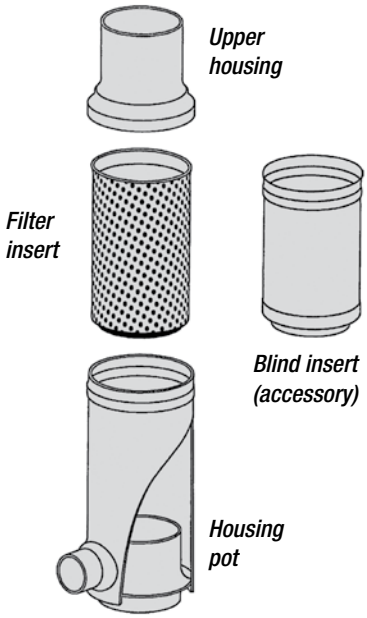
▶ *Stainless-steel housings can be installed in zinc or copper downspouts/downpipes without risk of galvanic action*




| For metal downspouts/downpipes, mesh size 0.28 mm (0.01 in.) Da = outside diameter of downspout/downpipe | | | Item No. |
|---|---|---|---|
| ● *Stainless-steel housing version* | | *with 0.28 mm (0.01 in.)* | |
| FS 100 VA | for nominal size (DN) 100 (3.9 in.) | Da 102 mm (4.0 in.) | FS 03 03 |
| FS 87 VA | for nominal size (DN) 87 (3.4 in.) | Da 89 mm (3.5 in.) | FS 03 02 |
| FS 80 VA | for nominal size (DN) 80 (3.1 in.) | Da 82 mm (3.2 in.) | FS 03 01 |
| FS 76 VA | for nominal size (DN) 76 (2.9 in.) | Da 76 mm (2.9 in.) | FS 03 05 |
| ● *Zinc housing version* | | | |
| FS 100 ZN | for nominal size (DN) 100 (3.9 in.) | Da 102 mm (4.0 in.) | FS 01 03 |
| FS 87 ZN | for nominal size (DN) 87 (3.4 in.) | Da 89 mm (3.5 in.) | FS 01 02 |
| FS 80 ZN | for nominal size (DN) 80 (3.1 in.) | Da 82 mm (3.2 in.) | FS 01 01 |
| FS 76 ZN | for nominal size (DN) 76 (2.9 in.) | Da 76 mm (2.9 in.) | FS 01 05 |
| ● *Copper housing version* | | | |
| FS 100 CU | for nominal size (DN) 100 (3.9 in.) | Da 102 mm (4.0 in.) | FS 02 03 |
| FS 87 CU | for nominal size (DN) 87 (3.4 in.) | Da 89 mm (3.5 in.) | FS 02 02 |
| FS 80 CU | for nominal size (DN) 80 (3.1 in.) | Da 82 mm (3.2 in.) | FS 02 01 |
| FS 76 CU | for nominal size (DN) 76 (2.9 in.) | Da 76 mm (2.9 in.) | FS 02 05 |

| For metal downspouts/downpipes, mesh size 0.44 mm (0.02 in.) Da = outside diameter of downspout/downpipe | | | Item No. |
|---|---|---|---|
| ● *Stainless-steel housing version* | | *with 0.44 mm (0.02 in.)* | |
| FS 100 VA | for nominal size (DN) 100 (3.9 in.) | Da 102 mm (4.0 in.) | FS 04 33 |
| FS 87 VA | for nominal size (DN) 87 (3.4 in.) | Da 89 mm (3.5 in.) | FS 04 32 |
| FS 80 VA | for nominal size (DN) 80 (3.1 in.) | Da 82 mm (3.2 in.) | FS 04 31 |
| FS 76 VA | for nominal size (DN) 76 (2.9 in.) | Da 76 mm (2.9 in.) | FS 04 35 |
| ● *Zinc housing version* | | | |
| FS 100 ZN | for nominal size (DN) 100 (3.9 in.) | Da 102 mm (4.0 in.) | FS 04 13 |
| FS 87 ZN | for nominal size (DN) 87 (3.4 in.) | Da 89 mm (3.5 in.) | FS 04 12 |
| FS 80 ZN | for nominal size (DN) 80 (3.1 in.) | Da 82 mm (3.2 in.) | FS 04 11 |
| FS 76 ZN | for nominal size (DN) 76 (2.9 in.) | Da 76 mm (2.9 in.) | FS 04 15 |
| ● *Copper housing version* | | | |
| FS 100 CU | for nominal size (DN) 100 (3.9 in.) | Da 102 mm (4.0 in.) | FS 04 23 |
| FS 87 CU | for nominal size (DN) 87 (3.4 in.) | Da 89 mm (3.5 in.) | FS 04 22 |
| FS 80 CU | for nominal size (DN) 80 (3.1 in.) | Da 82 mm (3.2 in.) | FS 04 21 |
| FS 76 CU | for nominal size (DN) 76 (2.9 in.) | Da 76 mm (2.9 in.) | FS 04 25 |

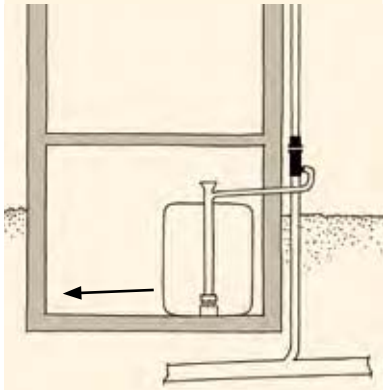
# Rainwater filters for installation in downspouts/downpipes (filter collectors)




| For plastic downspouts/downpipes, mesh size 0.28 mm (0.01 in.) Da = outside diameter of downspout/downpipe | | | | Item No. |
|---|---|---|---|---|
| ● *Stainless-steel housing version* | | | | *with 0.28 mm (0.01 in.)* |
| FS 110 VA | for nominal size (DN) 100 (3.9 in.) | Da 110 mm (4.3 in.) | | FS 03 04 |
| FS 76 VA | for nominal size (DN) 70 (2.8 in.) | Da 75 mm (3.0 in.) | | FS 03 05 |
| ● *Copper housing version* | | | | |
| FS 110 CU | for nominal size (DN) 100 (3.9 in.) | Da 110 mm (4.3 in.) | | FS 02 04 |
| FS 76 CU | for nominal size (DN) 70 (2.8 in.) | Da 75 mm (3.0 in.) | | FS 02 05 |

| For plastic downspouts/downpipes, mesh size 0.44 mm (0.02 in.) Da = outside diameter of downspout/downpipe | | | | Item No. |
|---|---|---|---|---|
| ● *Stainless-steel housing version* | | | | *with 0.44 mm (0.02 in.)* |
| FS 110 VA | for nominal size (DN) 100 (3.9 in.) | Da 110 mm (4.3 in.) | | FS 04 34 |
| FS 76 VA | for nominal size (DN) 70 (2.8 in.) | Da 75 mm (3.0 in.) | | FS 04 35 |
| ● *Copper housing version* | | | | |
| FS 110 CU | for nominal size (DN) 100 (3.9 in.) | Da 110 mm (4.3 in.) | | FS 04 24 |
| FS 76 CU | for nominal size (DN) 70 (2.8 in.) | Da 75 mm (3.0 in.) | | FS 04 25 |

| Components/spare parts | | Item No. |
|---|---|---|
| ● Upper housing, *please state nominal size* | | |
| made of zinc | *(ZN)* | FO 01 00 |
| made of copper | *(CU)* | FO 02 00 |
| made of stainless steel | *(VA)* | FO 03 00 |
| ● Housing pot, *please state nominal size* | | |
| made of zinc | *(ZN)* | FT 01 00 |
| made of copper | *(CU)* | FT 02 00 |
| made of stainless steel | *(VA)* | FT 03 00 |
| ● Filter insert made of stainless steel, *for all nominal sizes, height 17.5 cm (6.89 in.)* | | |
| Mesh size *0.28 mm (0.01 in.)* | | FE 03 00 |
| Mesh size *0.44 mm (0.02 in.)* | | FE 03 01 |


*To storm drain or soakaway system*

| Accessories | Item No. |
|---|---|
| ● Blind insert made of stainless steel *(VA)*, *for all nominal sizes*<br>Ensures direct throughflow of water to the storm drain or soakaway system, during winter operation or maintenance | BE 03 01 |

**WISY filters with fine filtering**
**guarantee optimum operational reliability, separation of all dirt particles and absolute drainage safety!**

# Standpipe filter collector (STFS)

*Standpipe filter collector (STFS)*

Rainwater filter and standpipe in one component for installation in the rainwater downspout/ downpipe or underground, functions as both standpipe and filter collector, prevents back-flow. Consisting of upper housing, housing pot and filter insert. *All parts made of stainless steel.* Filter mesh size 0.28 mm (0.01 in.) (basic version) or 0.44 mm (0.02 in.), extreme low maintenance. It is recommended that the filter be washed in a dishwasher. Outlet to the rain-water storage tank: DN 50. Outlet to storm drain for sewer pipe: DN 100.

Drainage safety according to DIN EN 12056 / EN 752, complies with DIN 1989.

| For metal downspouts/downpipes, mesh size 0.28 mm (0.01 in.) Da = outside diameter of downspout/downpipe | | | | Item No. |
|---|---|---|---|---|
| | | | *with 0.28 mmm (0.01 in.)* | |
| ● STFS | 100 VA for nominal size (DN) | 100 (3.9 in.) | Da 102 mm (4.0 in.) | SF 03 03 |
| ● STFS | 87 VA for nominal size (DN) | 87 (3.4 in.) | Da 89 mm (3.5 in.) | SF 03 02 |
| ● STFS | 80 VA for nominal size (DN) | 80 (3.1 in.) | Da 82 mm (3.2 in.) | SF 03 01 |
| ● STFS | 76 VA for nominal size (DN) | 76 (2.9 in.) | Da 76 mm (2.9 in.) | SF 03 05 |

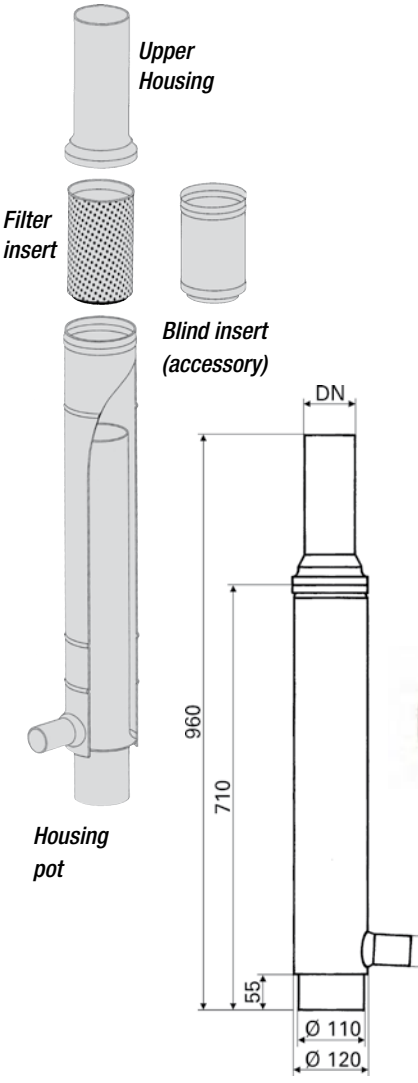
| For metal downspouts/downpipes, mesh size 0.44 mm (0.02 in.) Da = outside diameter of downspout/downpipe | | | | Item No. |
|---|---|---|---|---|
| | | | *with 0.44 mm (0.02 in.)* | |
| ● STFS | 100 VA for nominal size (DN) | 100 (3.9 in.) | Da 102 mm (4.0 in.) | SF 04 33 |
| ● STFS | 87 VA for nominal size (DN) | 87 (3.4 in.) | Da 89 mm (3.5 in.) | SF 04 32 |
| ● STFS | 80 VA for nominal size (DN) | 80 (3.1 in.) | Da 82 mm (3.2 in.) | SF 04 31 |
| ● STFS | 76 VA for nominal size (DN) | 76 (2.9 in.) | Da 76 mm (2.9 in.) | SF 04 35 |

| For plastic downspouts/downpipes, mesh size 0.28 mm (0.01 in.) Da = outside diameter of downspout/downpipe | | | | Item No. |
|---|---|---|---|---|
| | | | *with 0.28 mmm (0.01 in.)* | |
| ● STFS | 110 VA for nominal size (DN) | 100 (3.9 in.) | Da 110 mm (4.3 in.) | SF 03 04 |
| ● STFS | 76 VA for nominal size (DN) | 70 (2.8 in.) | Da 75 mm (3.0 in.) | SF 03 05 |

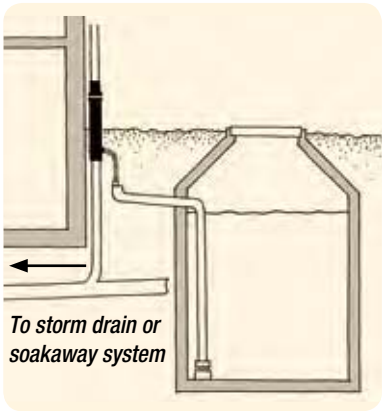
| For plastic downspouts/downpipes, mesh size 0.44 mm (0.02 in.) Da = outside diameter of downspout/downpipe | | | | Item No. |
|---|---|---|---|---|
| | | | *with 0.44 mm (0.02 in.)* | |
| ● STFS | 110 VA for nominal size (DN) | 100 (3.9 in.) | Da 110 mm (4.3 in.) | SF 04 34 |
| ● STFS | 76 VA for nominal size (DN) | 70 (2.8 in.) | Da 75 mm (3.0 in.) | SF 04 35 |

| Components/spare parts | Item No. |
|---|---|
| ● Upper housing made of stainless steel *(VA)*, *please state nominal size* | SO 03 00 |
| ● Housing pot made of stainless steel *(VA)* | ST 03 00 |
| ● Filter insert made of stainless steel *(VA)*, *for all nominal sizes, height 17.5 cm (6.89 in.)* | |
| Mesh size *0.28 mm (0.01 in.)* | FE 03 00 |
| Mesh size *0.44 mm (0.02 in)* | FE 03 01 |

| Accessories | Item No. |
|---|---|
| ● Blind insert made of stainless steel *(VA)*, *for all nominal sizes* | BE 03 01 |
| Ensures direct throughflow of water to the storm drain or soakaway system, during winter operation or maintenance. | |
| ● Stainless-steel standpipe clip *(VA)* | |
| with screw | SF 03 10 |
| (10 x 120) and wall plug. For secure attachment. | |







# WISY filters for every application

***WFF 100***
for roof areas up to
about 200 m² (2153 sq. ft.)


***WFF 150***
for roof areas up to
about 500 m² (5382 sq. ft.)

***WFF 300***
for roof areas up to
about 3000 m² (32,291 sq. ft.)

***Standpipe filter collector STFS***
for roof areas up to
about 200 m²
(2153 sq. ft.)

***Filter collector FS***
for roof areas up to
about 150 m² (1614 sq. ft.)

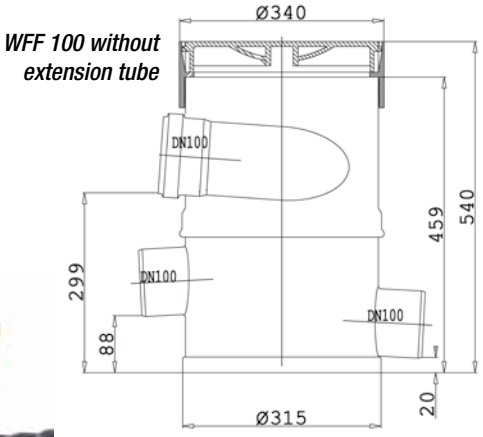
***Garden rainwater collector GRS***
for roof areas up to
about 80 m² (861.11 sq. ft.)

# Vortex fine filter WFF 100 (up to 200 m²/2153 sq. ft.)


Rainwater filter for installation in horizontal rainwater pipes underground or in the open air (e.g. for industrial applications). Basic version with 50 cm (1.6 ft.) extension tube for raising the inspection opening to ground level. Optionally available without extension tube. Freely rotatable rainwater inlet. *Tested to German standard ATV: Vehicle-duty capacity up to 30 t.* Polypropylene housing (PP). Stainless-steel filter insert, low-maintenance. It is recommended that the filter be washed in a dishwasher. Filter mesh size 0.28 mm (0.01 in.) (basic version) or 0.44 mm (0.02 in.).

Drainage safety according to DIN EN 12056 / EN 752, complies with DIN 1989.


**30t vehicle-duty capacity**
Tested to German standard ATV
Vehicle-duty capacity up to 30t
Vehicles as defined by DIN 1072/SLW 30

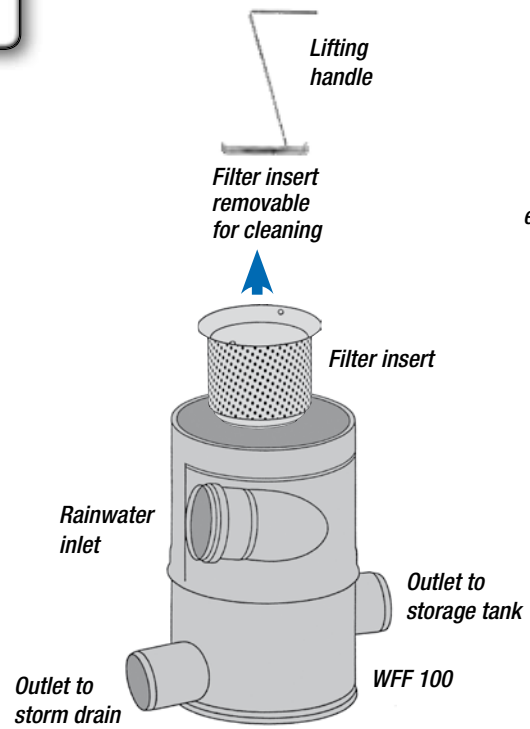


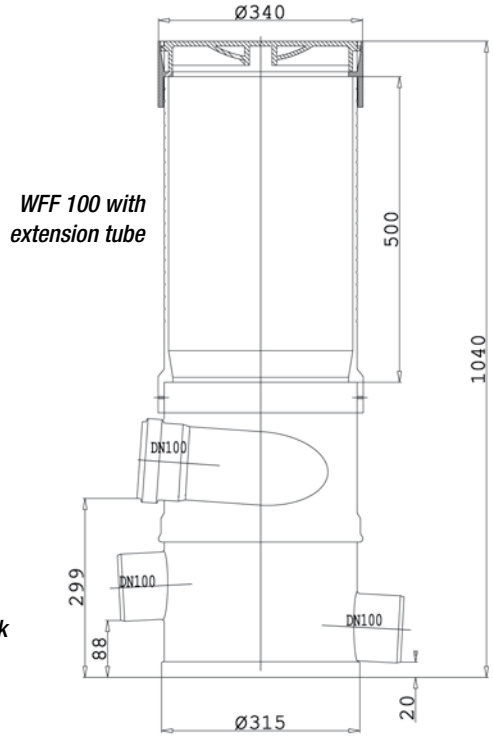


**NEW**
**Five-year guarantee on all vortex filter materials.**

## Benefits of WISY filters

- **Guarantees safe drainage**
- **Separates/filters out all dirt particles**
- **Oxygen enrichment by vortex action**
- **Low maintenance requirements**
- **Excellent water yield**

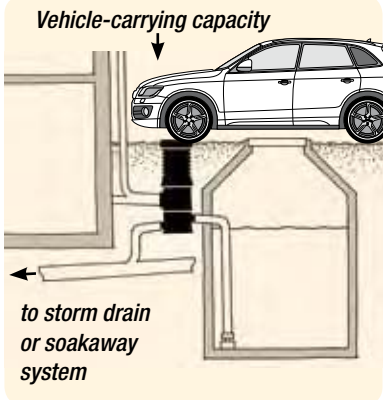
*WFF 100 with soakaway strainer*

| Vortex fine filter WFF 100 | | Item No. |
|---|---|---|
| consists of housing, end ring with housing cover and lifting handle (30 cm/11.8 in.) in the following versions: | | |
| ● WFF 100 with extension tube | filter insert 0.28 mm (0.01 in.) | WF 20 11 |
| ● WFF 100 with extension tube | filter insert 0.44 mm (0.02 in.) | WF 20 12 |
| ● WFF 100 without extension tube | filter insert 0.28 mm (0.01 in.) | WF 20 02 |
| ● WFF 100 without extension tube | filter insert 0.44 mm (0.02 in.) | WF 20 01 |

▶ *All WFF 100 filters are optionally available with a round spirit level for easy, upright installation of the vortex filter.* *See page 15.*

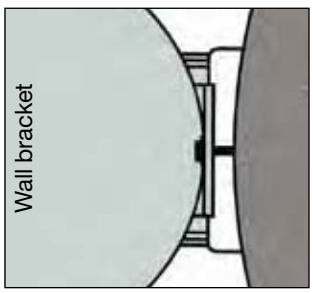

| Components/spare parts for WFF 100 | Item No. |
|---|---|
| ● Housing cover | WN 10 02 |
| ● End ring | ZW 10 00 |
| ● Filter insert made of stainless steel *(VA)*, height 15.5 cm (6.10 in.)<br>Mesh size *0.28 mm (0.01 in.)*<br>Mesh size *0.44 mm (0.02 in.)* | <br>WE 03 05<br>WE 03 06 |
| ● Stainless-steel lifting handle *(VA)* to lift out filter insert for maintenance<br>Length 30 cm (11.8 in.) *(standard)*<br>Length 63 cm (2 ft.)<br>Length 100 cm (3.3 ft.) | <br>WA 03 01<br>WA 03 02<br>WA 03 03 |
| ● Demonstration model WFF 100: Prepared for demonstration purposes | WS 20 01 |

| Accessories for WFF 100 | Item No. |
|---|---|
| ● Additional extension tube length 50 cm (1.6 ft.) made of polypropylene *(PP)* to raise the inspection opening to ground level. The extension tubes are fitted with a collar to fit the filter housing. Cutting lines around outer circumference make it easy to cut the tube accurately to the required mounting depth. | WV 10 10 |
| ● Blind insert made of stainless steel *(VA)* Ensures direct throughflow of water to the storm drain or soakaway system, during winter operation or maintenance. *(not illustrated)* | BE 03 05 |
| ● Stainless-steel soakaway strainer *(VA)* For trapping the fine and coarse dirt from the rinsing and excess water if the water is released into an underground soakaway system rather than a storm drain. Mesh size: *1.6 mm (0.06 in.)* | VS 03 04 |
| ● Stainless-steel wall-mounting bracket *(VA)* for installing filter on a vertical wall | WH 03 03 |
| ● Stainless-steel wall bracket *(VA)* for concrete rainwater storage tank | WH 04 00 |

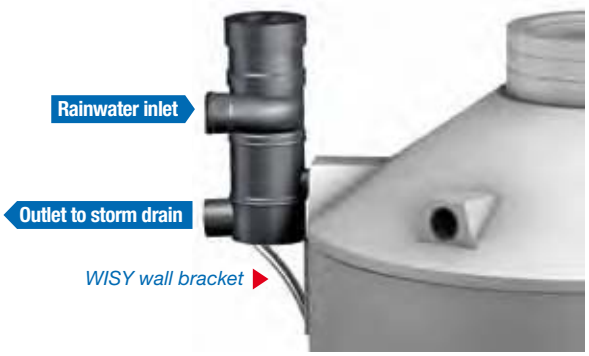




*Wall bracket for concrete rainwater storage tank*




*For secure attachment: The wall bracket can fit any curvature of storage tank.*



# Vortex fine filter WFF 150 (up to 500 m²/5382 sq. ft.)

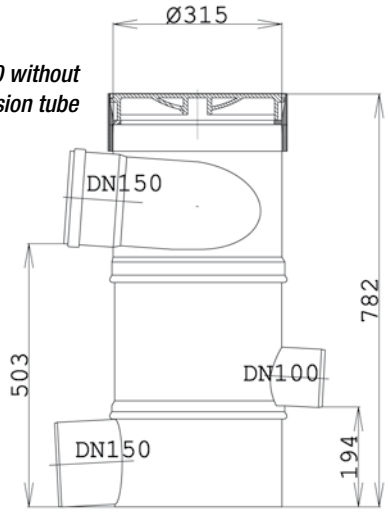
Rainwater filter for installation in horizontal rainwater pipes underground or in the open air (e.g. for industrial applications). Basic version with 50 cm (1.6 ft.) extension tube for raising the inspection opening to ground level. All tube connections can be freely rotated. *Tested to German standard ATV: Vehicle-duty capacity up to 30 t.* Optionally available without extension tube. Polypropylene (PP) housing. Stainless-steel filter insert, low-maintenance. It is recommended that the filter be washed in a dishwasher. Filter mesh size 0.28 mm (0.01 in.) (basic version) or 0,44 mm (0.02 in.).

Drainage safety according to DIN EN 12056 / EN 752, complies with DIN 1989.

*WFF 150 without extension*



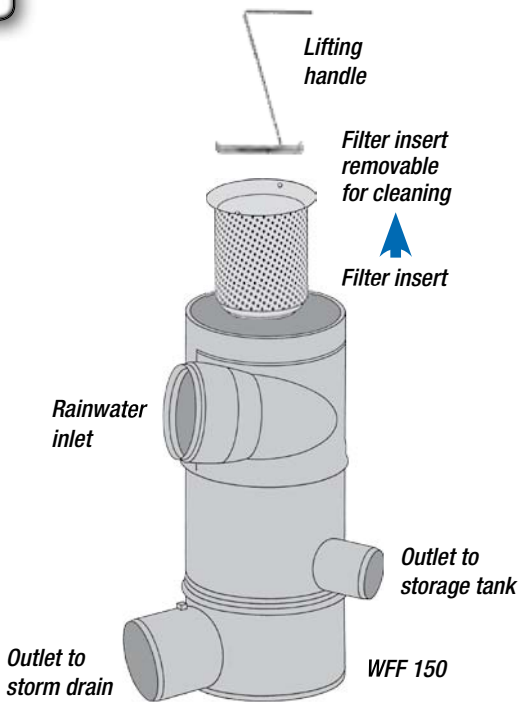
*WFF 150 without extension tube*



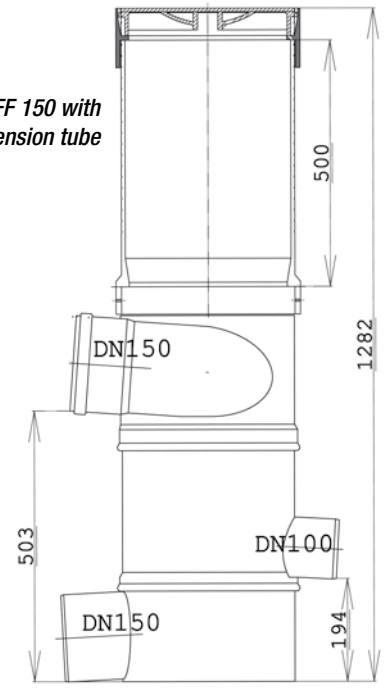

**30t vehicle-duty capacity**
Tested to German standard ATV
Vehicle-duty capacity up to 30t
Vehicles as defined by DIN 1072/SLW 30

## Benefits of WISY filters

- **Guarantees safe drainage**
- **Separates/filters out all dirt particles**
- **Oxygen enrichment by vortex action**
- **Low maintenance requirements**
- **Excellent water yield**


*WFF 150 with extension tube*



NEW

*WFF 150 with soakaway strainer*

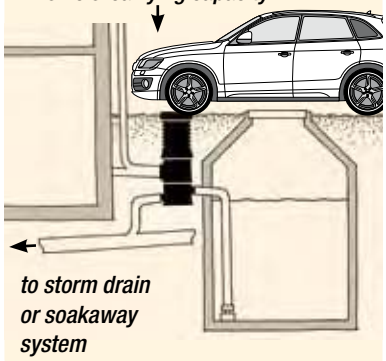
*Wall-mounting bracket*

EDELSTAHL® Rost frei

**NEW**

**Five-year guarantee on all vortex filter materials.**

*Vehicle-carrying capacity*



*to storm drain or soakaway system*

| Vortex fine filter WFF 150 | | Item No. |
|---|---|---|
| consists of housing, end ring with housing cover and lifting handle (30 cm/11.8 in.) in the following versions: | | |
| ● WFF 150 with extension tube | filter insert 0.28 mm (0.01 in.) | WF 10 11 |
| ● WFF 150 with extension tube | filter insert 0.44 mm (0.02 in.) | WF 10 12 |
| ● WFF 150 without extension tube | filter insert 0.28 mm (0.01 in.) | WF 10 02 |
| ● WFF 150 without extension tube | filter insert 0.44 mm (0.02 in.) | WF 10 01 |

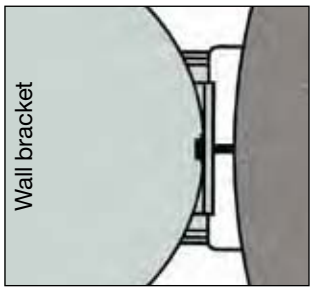
▶ *All WFF 150 filters are optionally available with a round spirit level for easy, upright installation of the vortex filter. See page 15.*

| Components/spare parts for WFF 150 | Item No. |
|---|---|
| ● Housing cover | WN 10 02 |
| ● End ring | ZW 10 00 |
| ● Filter insert made of stainless steel *(VA)*, height 21.5 cm (8.46 in.) | |
| Mesh size *0.28 mm (0.01 in.)* | WE 03 00 |
| Mesh size *0.44 mm (0.02 in.)* | WE 03 01 |
| ● Stainless-steel lifting handle *(VA)* to lift out filter insert for maintenance | |
| Length 30 cm (11.8 in.) *(standard)* | WA 03 01 |
| Length 63 cm (2 ft.) | WA 03 02 |
| Length 100 cm (3.3 ft.) | WA 03 03 |
| ● Demonstration model WFF 150: Prepared for demonstration purposes | WS 10 01 |

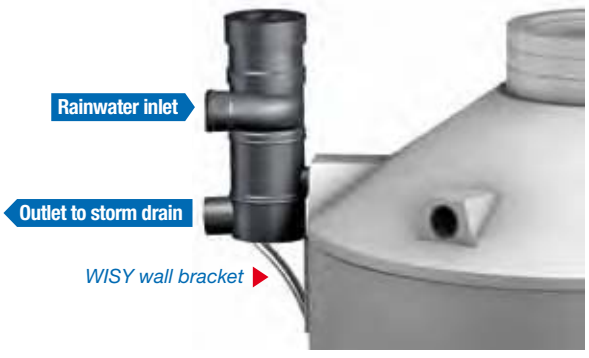
| Accessories for WFF 150 | Item No. |
|---|---|
| ● Additional extension tube length 50 cm (1.6 ft.) made of polypropylene *(PP)* to raise the inspection opening to ground level. The extension tubes are fitted with a collar to fit the filter housing. Cutting lines around outer circumference make it easy to cut the tube accurately to the required mounting depth. | WV 10 10 |
| ● Blind insert made of stainless steel *(VA)* Ensures direct throughflow of water to the storm drain or soakaway system, during winter operation or maintenance *(not illustrated)* | BE 03 02 |
| ● Stainless-steel soakaway strainer *(VA)* For trapping the fine and coarse dirt from the rinsing and excess water if the water is released into an underground soakaway system rather than a storm drain. Mesh size *1.6 mm (0.06 in.)* | VS 03 01 |
| ● Stainless-steel wall-mounting bracket *(VA)* for installing filter on a vertical wall | WH 03 03 |
| ● Stainless-steel wall bracket *(VA)* for concrete rainwater storage tank | WH 04 00 |

EDELSTAHL® Rost frei

*Wall bracket for concrete rainwater storage tank*




*For secure attachment: The wall bracket can fit any curvature of storage tank.*



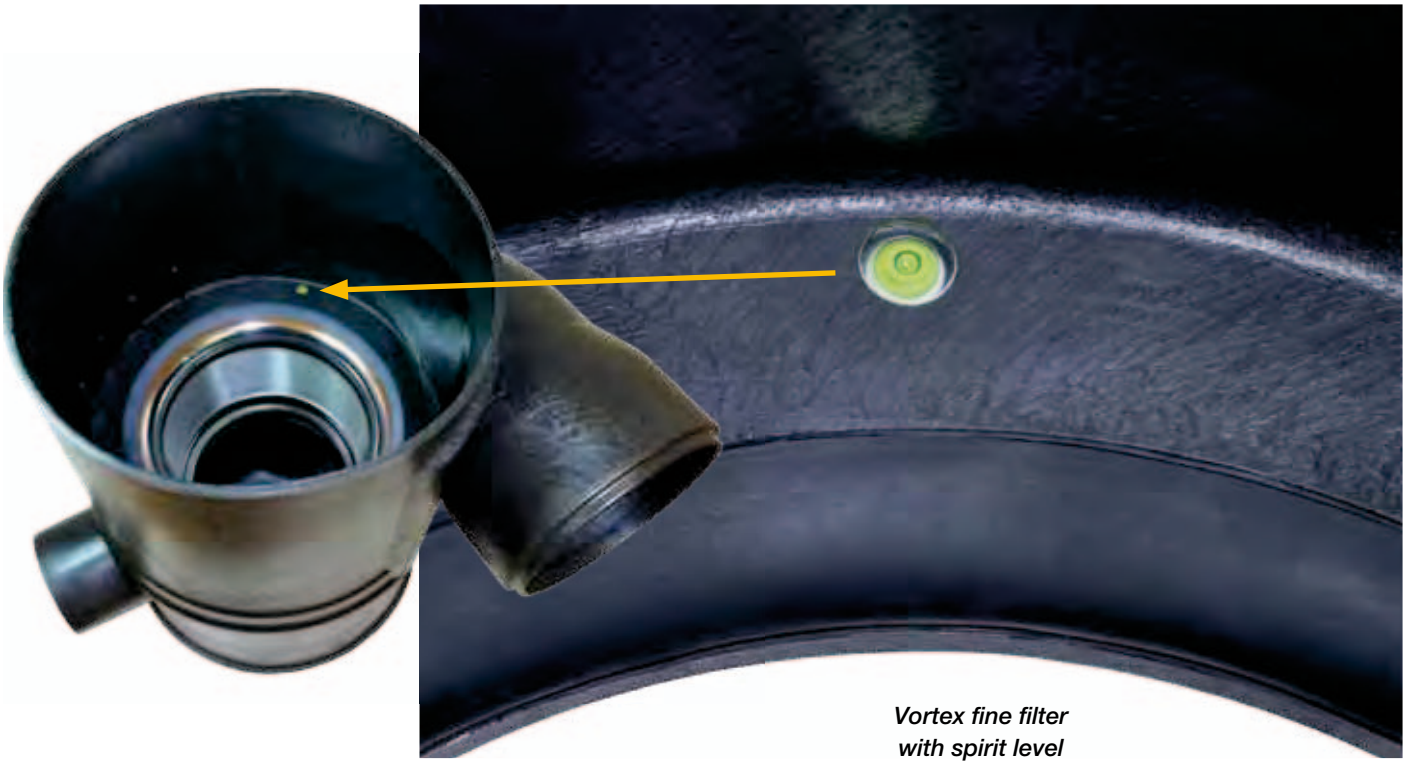
*Helps to ensure upright installation of filter!*

**Vortex fine filter with spirit level for quick, correct installation of the WFF 100 and WFF 150 filters.**

Filters can be installed perfectly upright with the help of the integrated spirit level. It has a diameter of 11 mm (0.43 in.) and an accuracy of 0.2 degrees.

| WFF 100 with spirit level | Item No. |
|---|---|
| ● WFF 100 with extension tube with spirit level, filter insert mesh size 0.28 mm (0.01 in.) | WF 20 05 |
| ● WFF 100 with extension tube with spirit level, filter insert mesh size 0.44 mm (0.02 in.) | WF 20 06 |
| ● WFF 100 without extension tube with spirit level, filter insert mesh size 0.28 mm (0.01 in.) | WF 20 03 |
| ● WFF 100 without extension tube with spirit level, filter insert mesh size 0.44 mm (0.02 in.) | WF 20 04 |

| WFF 150 with spirit level | Item No. |
|---|---|
| ● WFF 150 with extension tube with spirit level, filter insert mesh size 0.28 mm (0.01 in.) | WF 10 06 |
| ● WFF 150 with extension tube with spirit level, filter insert mesh size 0.44 mm (0.02 in.) | WF 10 07 |
| ● WFF 150 without extension tube with spirit level, filter insert mesh size 0.28 mm (0.01 in.) | WF 10 04 |
| ● WFF 150 without extension tube with spirit level, filter insert mesh size 0.44 mm (0.02 in.) | WF 10 05 |



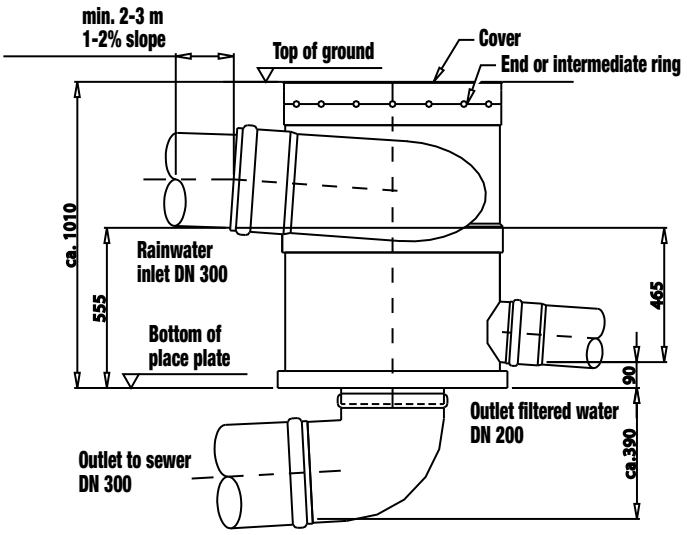
*Vortex fine filter with spirit level*

# Vortex fine filter WFF 300 (up to 3000 m²/32,291 sq. ft.)

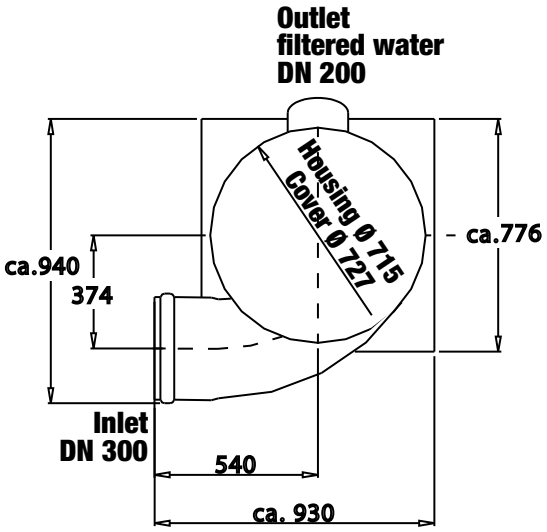
Rainwater filter for installation underground or in the open air (e.g. for industrial applications). *Vehicle-duty capacity tested to German standard ATV: Vehicle-duty capacity up to 60 t depending on cover version.* Polypropylene housing *(PP)*. Stainless-steel filter insert. Filter mesh size *0.38 mm (0.015 in.).*

Consists of housing, end ring with certified child safety device, aluminium or steel cover, stainless-steel filter insert, low maintenance, baseplate and 50 cm lifting handle made of stainless steel.

Drainage safety according to DIN EN 12056 / EN 752, complies with DIN 1989.









**Note:** When installing the WFF 300, make sure that the rainwater is admitted to the filter through a straight tube section of at least 1.5 metres (4.92 ft.) in length. The tube should be installed along a downward gradient of around 1 cm per metre.
To ensure optimum operation of the system, this tube section must not include any elbows or deflections.

| Vortex fine filter WFF 300 | Item No. |
|---|---|
| ● WFF 300<br>with steel cover, vehicle-duty capacity *up to 12 t*<br>(vehicles as defined by DIN 1072/LKW12) | WF 3011 |
| ● WFF 300<br>with steel cover, vehicle-duty capacity *up to 60 t*<br>(vehicles as defined by DIN 1072/SLW60) | WF 3001 |
| ● WFF 300<br>with aluminium cover, *pedestrian* duty to DIN 1989-3 | WF 3012 |

● All versions of the WFF 300 are optionally available in a short version with overall height reduced by 145 mm. Height difference between the base of the rainwater inlet pipe and the storm drain connection pipe is 800 mm in the shorter version instead of 945 mm in the standard version. See following page.

*With reduced invert differential*

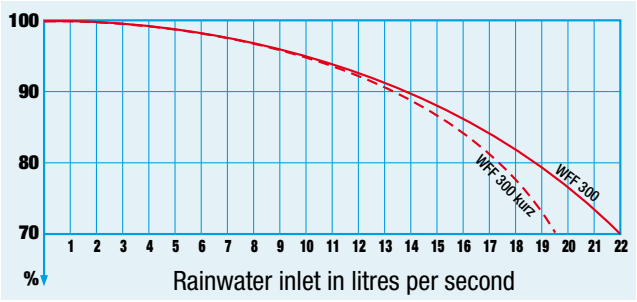
## Short version of vortex fine filter WFF 300.

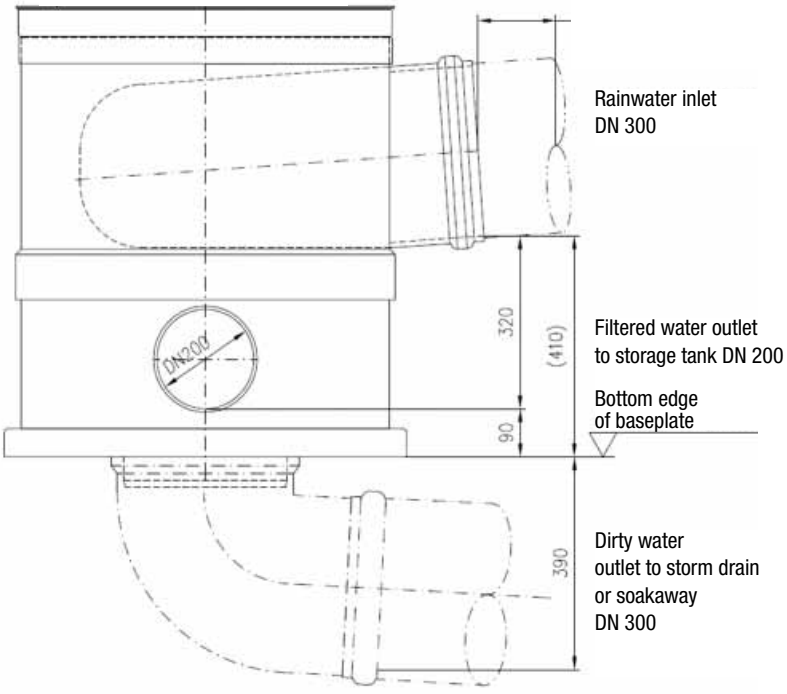
The difference in elevation between the rainwater inlet and outlet is only 800 mm, i.e. 145 mm less than the standard WFF 300 model. The short version of the WFF 300 is available with three different cover designs.

| Vortex fine filter short | Item No. |
|---|---|
| ● WFF 300 short with steel cover, vehicle-duty capacity of up to 12 t (acc. to DIN 1072) | WF 3021 |
| ● WFF 300 short with steel cover, vehicle-duty capacity of up to 60 t (acc. to DIN 1072) | WF 3023 |
| ● WFF 300 short, with aluminium cover, pedestrian duty (to DIN 1989) | WF 3022 |

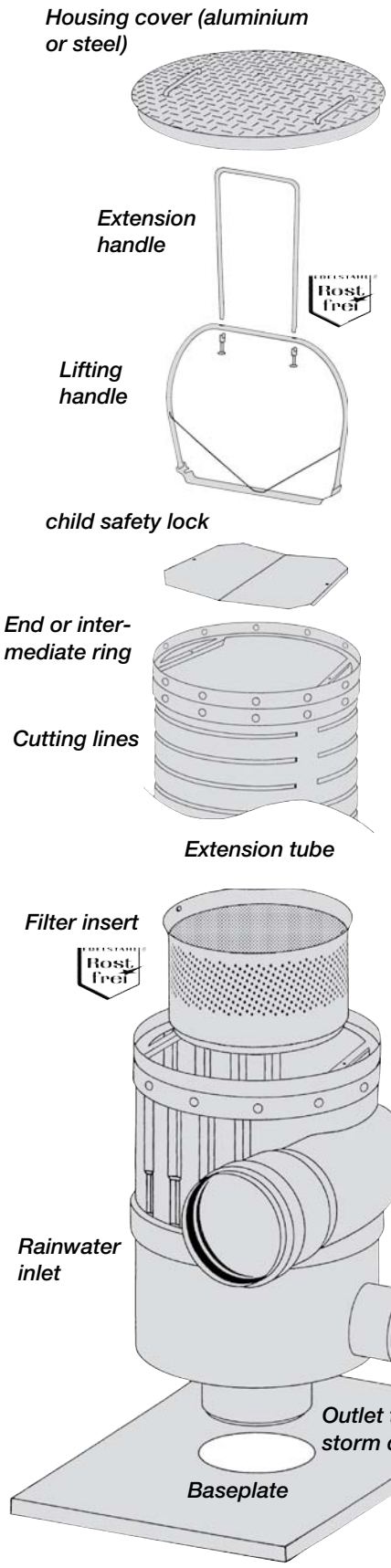
*Comparison - short version on left and standard version on right*

**Efficiency chart for WISY vortex fine filters WFF 300**



# Vortex fine filter WFF 300 (up to 3000 m²/32,291 sq. ft.)




| Components/spare parts | Item No. |
|---|---|
| ● Filter insert made of stainless steel, mesh size *0.38 mm (0.015 in.)* | WE 03 07 |
| ● Stainless-steel lifting handle, length 50 cm (1.6 ft.), to lift out filter insert for maintenance. | WA 03 05 |
| ● Non-slip steel cover<br>Vehicle-duty capacity *up to 12 t* (DIN 1072/LKW12)<br>Vehicle-duty capacity *up to 60 t* (DIN 1072/SLW60) | <br>WF 40 11<br>WF 40 01 |
| ● Non-slip aluminium cover, *pedestrian* duty according to DIN 1989-3 | RS 10 31 |
| ● Demonstration model prepared for demonstration purposes | WS 30 01 |

| Accessories | Item No. |
|---|---|
| ● Stainless-steel extension handle<br>Length 50 cm (1.6 ft.)<br>Length 100 cm (3.3 ft.) | <br>WA 03 07<br>WA 03 09 |
| ● Extension tube *(PE)* black, for raising inspection opening to ground level, diameter 70 cm (2.3 ft.), length optional up to max. 140 cm (4.6 ft.), price per 10 cm | WV 10 30 |
| ● Intermediate ring: Required to connect the extension tube | RS 10 20 |
| ● End ring with certified child safety device required to connect the cover to the housing | RA 10 20 |
| ● Soakaway strainer (not illustrated) | VS 03 10 |
| ● Stainless-steel blind insert to prevent water inflow to the storage tank. **NEW** Ensures direct throughflow of water to the storm drain or soakaway system, during winter operation or maintenance | BE 03 06 |
| ● Stainless-steel cover with engraved surface, optionally available with special coating | WF 40 15 |

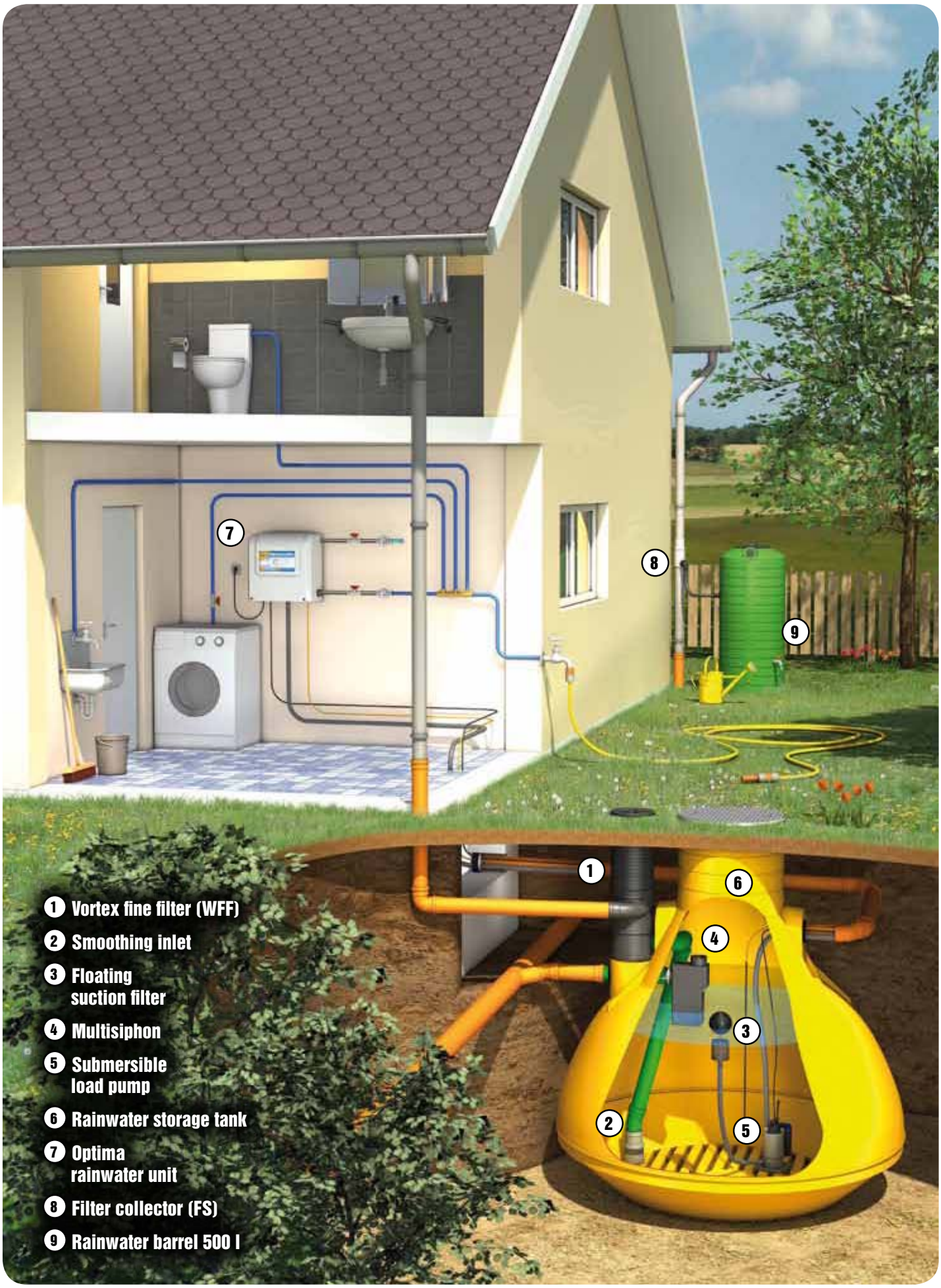

*Now available with engraved surface*

## Benefits of WISY filters

- **Guarantees safe drainage**
- **Separates/filters out all dirt particles**
- **Oxygen enrichment by vortex action**
- **Low maintenance requirements**
- **Excellent water yield**

***Rio de Janeiro:***
*WISY installed 18 large rainwater filters at the Maracana football world cup stadium in Rio de Janeiro. The rainwater is used to irrigate the playing turf and supply water to sanitary facilities. Rainwater is ideal for watering playing surfaces at all kinds of sport facilities.*

# Optima rainwater unit as part of a complete rainwater harvesting system



# WISY rainwater units for every application

### *MULTIMAT*

The low-noise rainwater unit
The pressure pump is located in the storage tank so that the system makes no noise inside the house.

**Now new for all WISY Rainwater Units: Standby Consumption is 50 times less - 0,2 Watt only!**

### *SIGMA*

The low-cost solution
ideal for the single-family home.
Easy to install with integrated „Aspri“ suction pump.

– low-noise –

### *OPTIMA*

The convenient solution for single-family/two-family homes.
Two-pump system for larger distances with a submersible pressure pump in the storage tank and a „Prisma“ feed pump in the house.

– low-noise –

### *MAXIMA*

For connecting multiple extraction points, e.g. for use in multi-family homes, schools, shopping centres, office buildings.

– low-noise –

### *DELTA*

For large appliances in commercial buildings, schools, hotels and industrial premises.
The modular dual-pump booster system.

# MULTIMAT rainwater unit

**New: 0,2 Watt standby only!**

The Multimat rainwater unit uses a submersible pressure pump to pump rainwater out of the storage tank and feed it under pressure into the rainwater supply circuit. It controls the rainwater system, monitors the fill level of the storage tank and automatically tops up the rainwater storage tank with mains water when required.

Supplied ready to connect, complies with DIN EN 1717and DIN 1989.

**Benefits:**

- Extremely compact
- Noiseless inside the house
- Reliable in operation thanks to pressure pump system
- Submersible pressure pump pumps rainwater out of the storage tank and feeds it under pressure into the rainwater supply circuit.
- Controls the rainwater system, monitors the fill level of the storage tank and automatically tops up the rainwater storage tank with mains water when required.

*Control unit and mains water top-up indoors*

| Multimat rainwater unit | Item No. |
|---|---|
| ● Multimat with submersible pressure pump Multigo 205, max. delivery rate 80 l/min., max. delivery head 48 m | RW 9008 |
| ● Multimat with submersible pressure pump Multigo 407, max. delivery rate 125 l/min., max. delivery head 49.4 m | RW 9012 |

*Pressure pump with floating suction filter in the storage tank*

**The scope of supply consists of:**

**Wall unit in the house with:**

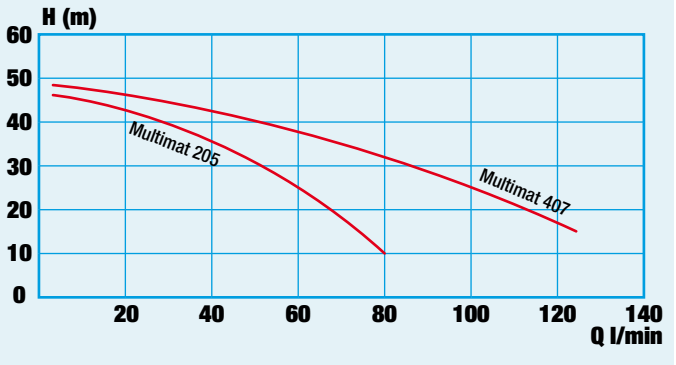
- Pump controller SA 06, cut-in pressure 1.5 bar with pressure gauge and operating state indicator
- Open mains water outlet with solenoid valve, ½“ for Multimat 205 and ¾“ for Multimat 407, connecting hose made of special-purpose rubber with stainless-steel braiding, ball valve with dirt trap
- Wall bracket made of stainless-steel with fixings
- Labelling set

**Storage tank equipment with floating fine suction filter:**

- Multi-stage submersible pressure pump Multigo with stainless-steel baseplate (22 cm x 22 cm/8 in. x 8 in.), 20 m connecting cable and 3 m lifting strap. With 1“ nozzle and backflow prevention valve at discharge end
- Float switch, with switch lever and clamp with 20 m cable
- Adapter plug
- Floating suction filter made of stainless steel, mesh size 0.3 mm (0.01 in.), with 0.75 m (2.5 ft.) highly flexible suction tube

## Multimat

*Operating characteristic at 2850 rpm*



## *Noiseless inside the house*

*The Multimat rainwater unit combined with a concrete storage tank with WISY vortex fine filter*

**The Multimat rainwater unit operates with two separate cables between the storage tank and the wall unit. This arrangement makes the system easy to install and ensures lasting operational reliability. Two sockets must be provided by the client.**

| Recommended accessories | Item No. |
|---|---|
| ● Hose connection set for Multimat, (for rainwater distribution system) 1x ¾“ pressure hose assembly with elbow and ¾“ ball valve | RW 70 01 |
| ● Two surface-mounted water meters 2 x 1“ outside thread, for Multimat, two connections for water meters 1“ union nut and ¾“ outside thread, 1“ union nut and ½“ inside thread | RW 70 10 |
| ● Flexible tube DN 50, 25 m roll | WD 20 00 |
| ● Adapter flexible tube to tundish | WD 20 21 |

# SIGMA rainwater unit

*Sigma with cover*

**Fully automatic rainwater unit for supplying a single-family home with rainwater.**

The unit draws rainwater from a storage tank and feeds it under pressure into the rainwater supply circuit. The unit controls the entire rainwater supply system, checks the fill level of the storage tank and automatically switches over to mains water operation when required.

Supplied ready to connect. Complies with DIN 1989 and DIN EN 1717

**Benefits:**

- Operates fully automatically to supply household appliances with rainwater on demand
- Automatic mains water top-up with integral 9-litre top-up tank
- System can be manually switched over from rainwater operation to mains water operation at any time
- Optimum price/performance ratio

| Sigma rainwater unit | Item No. |
|---|---|
| ● Sigma 3, delivery head max. 34 m, delivery rate max. 66l/min without level indicator | RZ 1003 |
| with level indicator | RZ 1013 |
| ● Sigma 4, delivery head max. 44 m, delivery rate max. 66l/min. without level indicator | RZ 1004 |
| with level indicator | RZ 1014 |

*Dimensions of the Sigma wall unit (in mm): W 500 x H 510 x D 315*

*Sigma without cover*

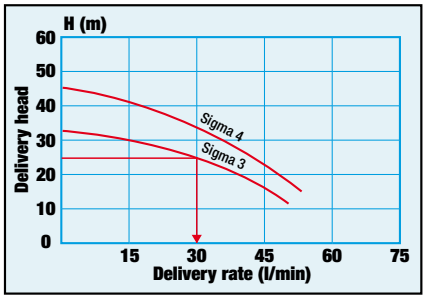
**The scope of supply consists of:**

- Self-priming Aspri Plus pump and pump controller, available in two different versions (3 or 4 bar), with optional level indicator
- Pressure gauge (pressure indicator)
- DIN-compliant mains water top-up function, integral 9-litre top-up tank
- Cover
- Float switch for controlling top-up with mains water

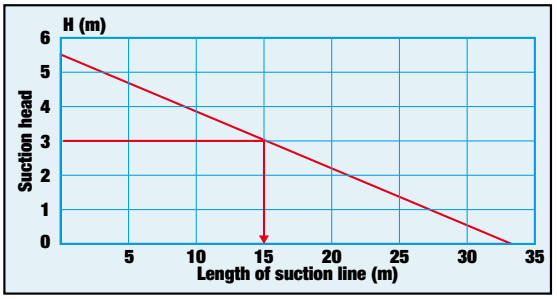
*The example chart on the right demonstrates that the Sigma 3 pump delivers 30 litres per minute with a delivery head of around 25 metres*

**Performance charts for Sigma rainwater unit applications**

**for the discharge end**



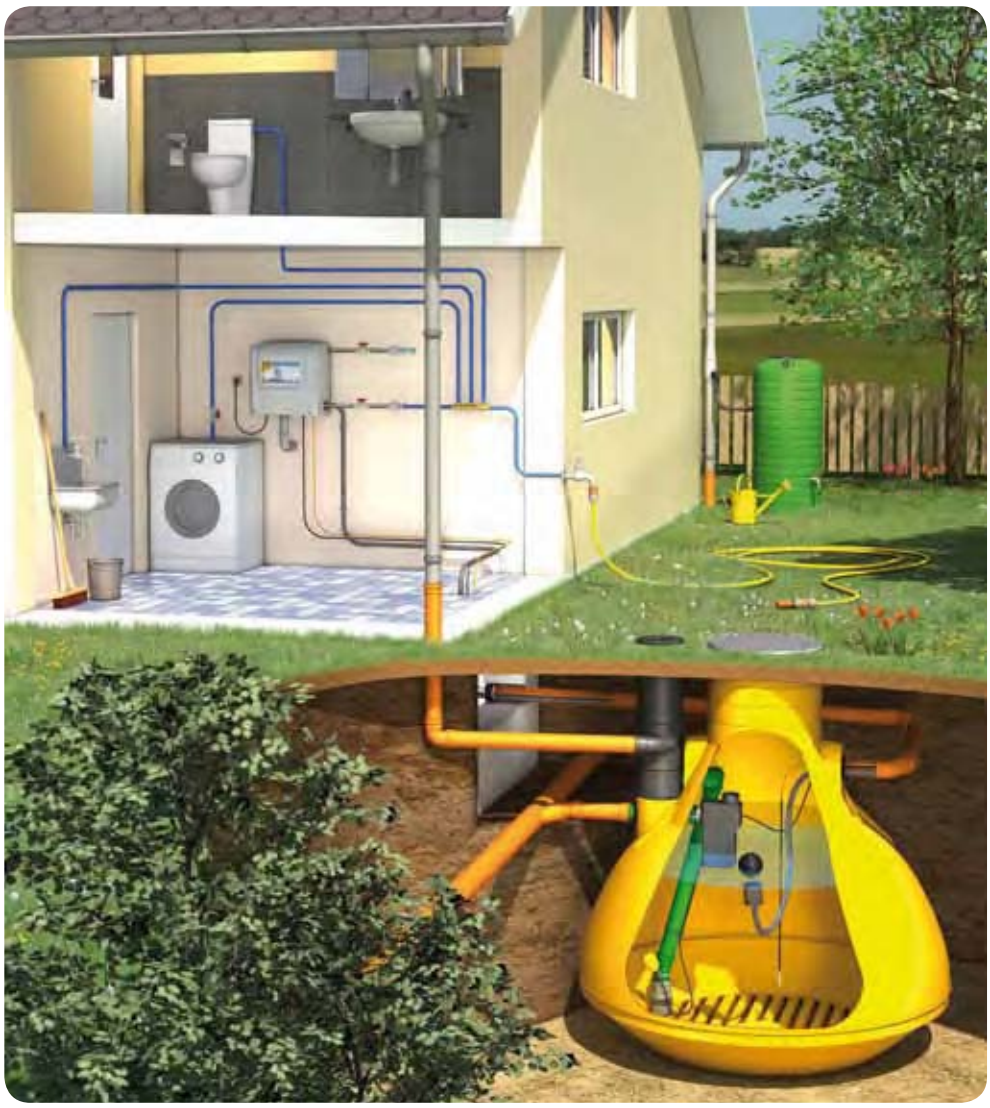

**for the suction end**




*The example chart above demonstrates that the maximum suction line length is 15 metres with a suction head of three metres*

**New: 0,2 Watt standby only!**

*The inexpensive solution!*



*Complete installation with one Sigma rainwater unit*

| Recommended accessories | Item No. |
|---|---|
| ● Floating coarse suction filter SAGF 1“, with float, with non-return valve with 2 m suction hose assembly, connection to PE pipe | SZ 98 11 |
| ● Floating fine suction filter SAFF 1“, with float, with non-return valve with 2 m suction tube and connection to PE pipe | SZ 98 01 |
| ● Spiral suction and pressure hose 1“, price per metre | AS 20 03 |
| ● Hose connection set consisting of two ¾“ and 1“ pressure hose assemblies, each 0.5 in length, ¾“ ball valve with dirt trap, 1“ ball valve and one 1“ nozzle | RW 78 00 |
| ● Two surface-mounted water meters 2 x 1“ outside thread, for hose connection set above and two connections for water meters 1“ union nut and ¾“ outside thread | RW 78 10 |
| ● Measuring lead extension for level indicator, 10 m | FA 99 15 |
| ● Hose clamp 1” | SS 03 03 |
| ● Labelling set | ZS 50 00 |
| ● Ball valve 1“ | ZK 04 13 |

## *Optima - the convenient solution for single-family/ two-family homes*

The rainwater unit combines all components essential for operation in a single device. Pumps the rainwater out of the storage tank and feeds it under pressure into the rainwater supply circuit. Controls the entire rainwater system, monitors the fill level of the storage tank and automatically tops up with mains water in the wall unit when required.

Supplied ready to connect, complies with DIN EN 1717and DIN 1989.

**Benefits:**

- Highly reliable rainwater supply by submersible loading pump
- Manual switchover from rainwater operation to mains water operation at any time
- Space-saving compact design

*Optima with cover*

| Optima with loading pump and floating filter SAFF | Item No. |
|---|---|
| ● Optima 4, with 4 bar system pressure, max. delivery rate 70 l/min. without level indicator | RW 9924 |
| with level indicator | RW 9914 |
| ● Optima 5, with 5 bar system pressure, max. delivery rate 70 l/min. without level indicator | RW 9925 |
| with level indicator | RW 9915 |

**The scope of supply consists of:**

**Wall unit in the house with:**

- Normal-priming, multi-stage centrifugal pump
- Pump controller SA 06, cut-in pressure 1.5 bar with pressure gauge
- Level indicator (optional), with 13 m measuring lead
- Automatic mains water top-up by 9 l top-up tank
- Cover, wall-mounting bracket

**Storage tank equipment with:**

- Provedo VX submersible pressure pump with fixed vertical float switch, 20 m connecting cable, 1“ nozzle at discharge end with non-return valve, 3 m lifting strap and hook with screw thread
- Stainless-steel baseplate 22 cm x 22 cm (8 in. x 8 in.) for submersible pressure pump
- Stainless-steel floating fine suction filter, mesh size 0.3 mm (0.01 in.), with 0.75 m (2.46 ft.) flexible suction tube
- Labelling set

*Dimensions of the Optima wall unit (in mm): W 500 x H 510 x D 315*

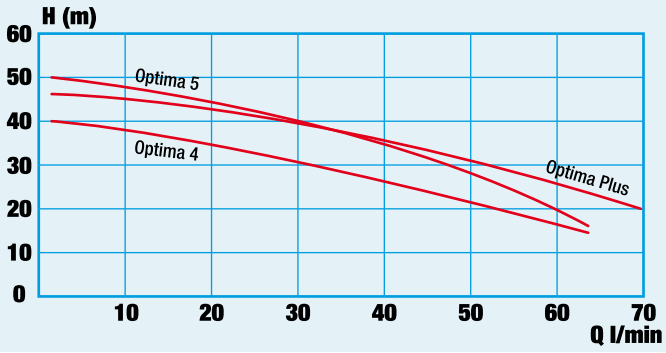
*Loading pump Provedo VX for Optima 4 and 5*

**New: 0,2 Watt standby only!**

*Optima without cover*

### Optima

*Operating characteristic at 2850 rpm*



## *OptimaPlus - ideal for long distance or large height differential between the storage tank and wall unit*

The rainwater unit combines all components essential for operation in a single device. Pumps the rainwater out of the storage tank over long distances and large height differentials and feeds it under pressure into the rainwater supply circuit.

Controls the entire rainwater system, monitors the fill level of the storage tank and automatically tops up with mains water in the wall unit when required.

Supplied ready to connect, complies with DIN EN 1717 and DIN 1989.

**Benefits:**
- Highly reliable rainwater supply by submersible loading pump
- Manual switchover from rainwater operation to mains water operation at any time
- Suitable for long distances and large height differentials

*Included in the scope of supply: Hose nozzle with integrated non-return valve*

*Dimensions of the OptimaPlus wall unit (in mm): W 500 x H 510 x D 315*

**New: 0,2 Watt standby only!**

| Optima*Plus* | Item No. |
|---|---|
| ● Optima*Plus,* max. delivery rate 70l/min., max. delivery head 47 m, max. feed pressure 4.7 bar | RW 9800 |

**The scope of supply consists of:**

**Wall unit in the house with:**
- Normal-priming, multi-stage centrifugal pump, max. feed pressure 4.7 bar
- Pump controller SA 06, cut-in pressure 1.5 bar with pressure gauge and operating state indicator
- Automatic mains water top-up
- Operating state indicator for mains
- Cover, wall-mounting bracket

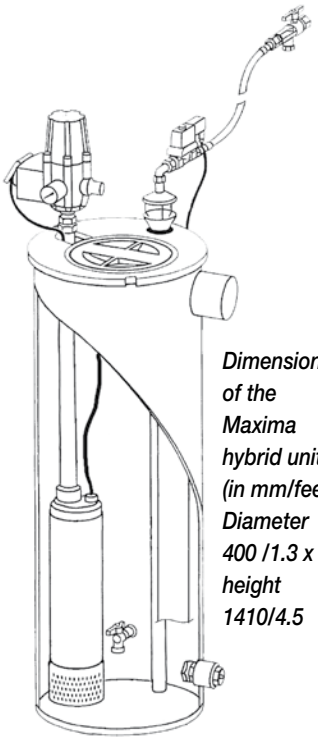
**Storage tank equipment with:**
- Multigo 205 multi-stage submersible pressure pump, max. feed pressure 4.7 bar with 3.5 m connecting cable (4-core), 1“ nozzle with non-return valve at discharge end, 3 m lifting strap
- Stainless-steel baseplate 22 cm x 22 cm (8 in. x 8 in.) for Multigo
- Stainless-steel float switch with switch lever and clamp
- Stainless-steel fine suction filter, mesh size 0.3 mm (0.01 in.) with 0.75 m (2.46 ft.) highly flexible suction tube
- 22 m (72.9 ft.) cable extension (4-core) with connector and coupling IP 68
- Labelling set

| Recommended accessories for all Optima units | Item No. |
|---|---|
| ● Hose connection set for Optima (for mains water top-up and rainwater distribution system) consisting of two ¾“ and 1“ pressure hose assemblies, each 0.5 in length, ¾“ ball valve with dirt trap, 1“ ball valve and one 1“ nozzle | RW 7800 |
| ● Two surface-mounted water meters 2 x 1“ outside thread, for hose connection set above and two connections for water meters 1“ union nut and ¾“ outside thread | RW 7810 |
| ● Measuring lead extension for level indicator, 10 m | FA 9915 |
| ● System cable coupling set, IP 67 | KV 3020 |
| ● Cable coupling set (5-pin), IP 68 for Optima*Plus* | KV 3000 |
| ● Flexible electric cable 3 x 1.5 mm², specifically for cable coupling sets, *can be cut to length on request, price per m* | KV 3005 |
| ● Hose clamp | SS 0303 |
| ● Pressure hose | DS 2003 |
| ● Flexible electric cable 4 x 1.5 mm², per m | RW 9823 |
| ● Connector (7-pin), IP 67 | RW 9821 |
| ● Coupling (7-pin), IP 67 | RW 9822 |

New: 0,2 Watt standby only!

*Hybrid unit indoors*

*Submersible loading pump in storage tank*



*Dimensions of the Maxima hybrid unit (in mm/feet): Diameter 400 /1.3 x height 1410/4.5*

*Non-return valve*

**Large hybrid unit ensures high supply capacity**

Combines all components required to operate the rainwater supply system according to the two-pressure-pump principle.

Rainwater is pumped by the submersible loading pump out of the storage tank to the buffer tank of the indoor hybrid unit. A submersible loading pump inside the buffer tank supplies rainwater to appliances. The buffer tank of the unit is directly topped up with mains water, buffer storage volume 100 l for high consumption peaks. Complies with DIN 1989 and DIN EN 1717

**Benefits:**

- System supplied ready to connect, no electrical work required
- Quiet in operation thanks to submersible pumps
- Manual switchover between rainwater operation and mains water operation possible at any time
- High supply and operational reliability even during periods of peak consumption

| Maxima | No. of consumers (guide value) | Maximum delivery rate | Maximum delivery head |
|---|---|---|---|
| 205 | 2 to 4 households | 75 l/min. | 47.7 m (157 ft.) |
| 407 | 4 to 8 households<br>Commerce + industry | 125 l/min. | 49.4 m (162 ft.) |

| Maxima rainwater unit | Item No. |
|---|---|
| ● Maxima 205 controller attached to unit | ZE 99 01 |
| ● Maxima 407 controller attached to unit | ZE 99 03 |
| ● Maxima 205 controller for wall mounting | ZE 98 01 |
| ● Maxima 407 controller for wall mounting | ZE 98 03 |

**The scope of supply consists of:**

**Indoor hybrid unit with:**

- Capacity 100 l (26.39 gallons) with emergency overflow DN 100 (3.9 in.)
- Multigo 205 or 407 multi-stage submersible loading pump with rubber feet
- Pump controller SA 06/V with pressure gauge
- Electronic control unit with sensor rod
- Automatic mains water top-up
- Open mains water outlet (½“ for Maxima 205, ¾“ for Maxima 407), with solenoid valve, ball valve and dirt trap
- Drain valve ½“
- Non-return valve in rainwater inlet

**Storage tank equipment with:**

- Provedo VX submersible loading pump with fixed vertical float switch, 20 m connecting cable, 1¼“ nozzle at discharge end with non-return valve (ST 1011), 3 m lifting strap and hook with screw thread
- Stainless-steel baseplate 22 cm x 22 cm (8 in. x 8 in.) for submersible loading pump
- Stainless-steel floating fine suction filter, mesh size 0.3 mm (0.01 in.), with 0.75 m (2.5 ft.) flexible suction tube
- Labelling set

| Recommended accessories | Item No. |
|---|---|
| ● Hose connection set for Maxima, comprising connection hose 0.50 m (1.6 ft.), 1“ union nut, ¾” brass ball valve with inside thread | VS 99 53 |
| ● Two surface-mounted water meters 2 x 1“ outside thread, for hose connection set above and two connections for water meters 1“ union nut and ¾“ outside thread, 1“ union nut and ½“ inside thread | RW 70 10 |
| ● Non-return valve for the event that the water level in the storage tank can rise above the centre line of the indoor buffer storage tank. The non-return valve closes the inlet to the buffer storage tank. The inlet is opened again only if the storage tank pump is switched on. This system prevents the unintentional inflow of rainwater from the storage tank into the buffer storage tank through the full inlet hose, comprises: Solenoid valve 1 ¼“ cable, 1.5 m (4.92 ft.) long and adapter plug | SV 15 01 |

# Tailor-made large systems

**For commercial buildings, schools, hotels and industrial premises**

The Delta rainwater unit is WISY's dual-pump booster system which is designed to meet the requirements of large-scale consumers. It is primarily intended for installation in public buildings and in large or high buildings. The system is capable of supplying a large number of appliances when requirements are extremely diverse. It is designed according to the modular principle. In order to select the correct modules, it is necessary to know how much water will be required and at what pressure. In larger buildings, these values are generally calculated by a specialist planner. Once this information is known, a suitable WISY dual-pump booster system can be assembled from the following modules.

Module 1

## The buffer tank

The WISY dual-pump booster system has a buffer tank with electronic control system. This basic module is identical in all modular dual-pump booster systems. See page 28.

Module 2

## The mains water top-up

From the four different sizes of top-up, select the one which will be large enough to supply the required volumetric flow of mains top-up water. See page 28.

Module 3

## The dual-pump booster set

This is the core of the system and you can choose from 5 different types and models. Booster sets with varying degrees of operating convenience and different ratings are available. See page 29.

Module 4

## The submersible loading pump

This pump is installed in the storage tank and pumps fresh water into the buffer tank. Select a suitable loading pump according to the distance between the storage and buffer tanks and the required water flow rate. See page 29.

# Delta rainwater unit, module 1

*500 litre buffer tank*

The buffer tank is installed in the utility room or basement. Its purpose is to cover peak demand. It compensates for periods when the booster pumps are pumping at a higher rate than the loading pump. With a buffer volume of 500 litres, it is capable of meeting the water usage requirements of large buildings.

The buffer tank is also used to draw water from the mains supply when the rainwater storage tank is empty. A fully automatic, electronic control system detects the fill levels in the buffer and storage tanks. The electronic control system then starts up either the pump in the storage tank or the mains water top-up and shuts the system down again automatically when a predefined fill level is reached.

| **Delta rainwater unit module 1** | **Item No.** |
|---|---|
| ● Buffer tank complete | DT 10 01 |

**The scope of supply consists of:**
– 500 litre tank with plastic screw-on cover
– Automatic electronic control system with sensor rod
– Overflow DN 100 with internal multisiphon
– Connection for inlet tube of correct diameter, with integrated non-return valve

# Delta rainwater unit, module 2


*Open mains water outlet*

The correct size of mains water top-up can be selected from the table below based on water usage requirements. The unit is supplied ready-assembled on the buffer tank. The electronic control system of the buffer tank starts up and shuts down the mains water top-up when required. It comprises a stainless-steel tundish with nozzle for splash-free inflow, solenoid valve with connecting cable and electric plug, connecting tube with stainless-steel braiding and brass ball valve with stainless-steel dirt trap (mesh size 0.65 mm (0.03 in)).

| Connection | Top-up water flow rate with 3 bar system pressure | Connecting hose | Tundish |
|---|---|---|---|
| ¾“ | 6.48 m³/h | 50 cm | DN 50 |
| 1“ | 8.64 m³/h | 75 cm | DN 70 |
| 1½“ | 20.52 m³/h | 75 cm | DN 100 |
| 2“ | 34.92 m³/h | 100 cm | DN 100 |

| **Open mains water outlet** | **Item No.** |
|---|---|
| ● ¾“ | TW 99 09 |
| ● 1“ | TW 99 03 |
| ● 1½“ | TW 99 05 |
| ● 2“ | TW 99 07 |

# Delta rainwater unit, module 3

*Dual-pump booster system with Hydrovar control*

The dual-pump booster must be selected according to pressure and flow rate requirements and the desired ease of operation.

| Dual-pump booster systems | Item No. |
|---|---|
| ● **DPA Aspri 15-5**<br>2 self-priming centrifugal pumps, analogue control system for alternate startup and activation of both pumps to cover peak-load demand, isolated output, 1 ½“ connection (inside thread) suction and discharge ends, expansion vessel<br>Q max = approx. 110 l/min  H max = 54 m | DT 1505 |
| ● **DPA Aspri 25-5**<br>2 self-priming centrifugal pumps, analogue control system for alternate startup and activation of both pumps to cover peak-load demand, isolated output, 1 ½“ connection (inside thread) suction and discharge ends, expansion vessel<br>Q max = approx. 183 l/min  H max = 57 m | DT 2505 |
| ● **GXS 20 / 2 HM 7**<br>2 horizontal non-self-priming centrifugal pumps, control with automatic alternate startup and activation of both pumps to cover peak-load demand<br>Connection: suction end 2“, discharge end 1 ½“ *optional: expansion vessel*<br>Q max = 140 l/min  Q = 40 – 140 l/min  H = 52.5 – 25 m  H max = 59 m | DT 2002 |
| ● **GTKS 20 / 2 HM 7 ZT with Teknospeed**<br>2 horizontal non-self-priming centrifugal pumps with Teknospeed electronic speed control system, automatic alternate startup and activation of both pumps to cover peak-load demand, isolated output, connection: suction end 2“, discharge end 1 ½“ *optional: expansion vessel*<br>Q max = 140 l/min  Q = 40 – 140 l/min  H = 52.5 – 25 m  H max = 59 m | DT 2022 |
| ● **GT 20 HV LC 5SV08 F011T with Hydrovar**<br>2 non-self-priming, vertical 8-stage centrifugal pumps 5SV08F011T made of stainless steel with three-phase motor (3x400 V), with Hydrovar electronic speed control system, automatic alternate startup, isolated output, expansion vessel (24 l), connections at suction end / discharge end: 1 ¼“<br>Q max = 284 l/min  Q = 40 – 142 l/min (single pump)  H = 57.6 – 25.8 m | DT 2005 |

# Delta rainwater unit, module 4

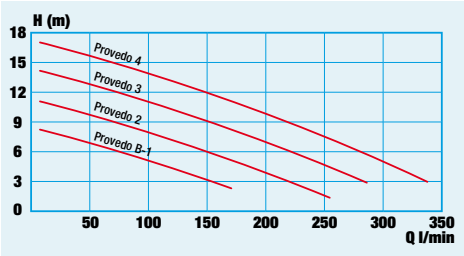
*Multigo with float switch*

*Provedo loading pump 2/3/4*

The submersible pump is module 4 of the Delta rainwater unit. The required size of submersible pump in the storage tank is determined according to the height differential and the distance between the storage tank and the buffer tank.

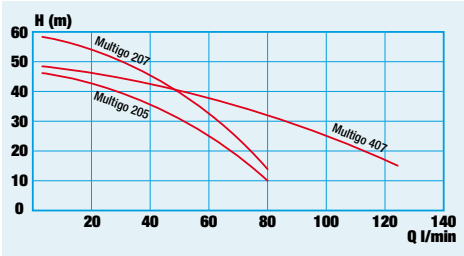
## Provedo

*Operating characteristic at 2850 rpm*




## Multigo

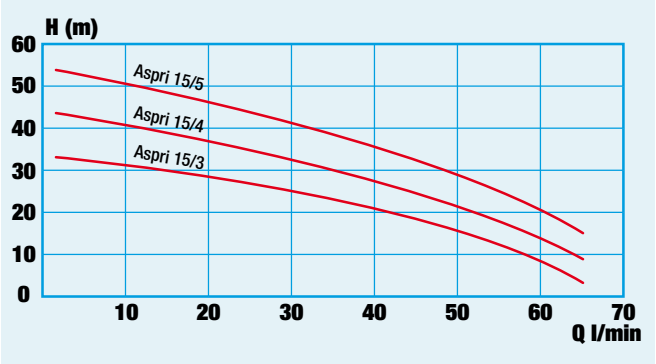
*Operating characteristic at 2850 rpm*




| Submersible pump | Connection suction end | Item No. |
|---|---|---|
| ● Provedo B1 | 1“ nozzle | UP 13 22 |
| ● Provedo - 2 | 2“ outside thread | UP 01 26 |
| ● Provedo - 3 | 2“ outside thread | UP 01 27 |
| ● Provedo - 4 | 2“ outside thread | UP 01 28 |
| ● Multigo 205 | 1¼“ inside thread | UP 11 02 |
| ● Multigo 407 | 1¼“ inside thread | UP 11 03 |
| ● Multigo 409 | 1¼“ inside thread | UP 11 09 |

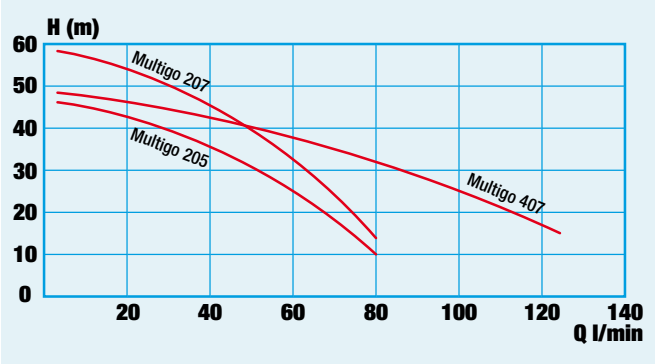
## Aspri Plus

*Operating characteristic at 2900 rpm*



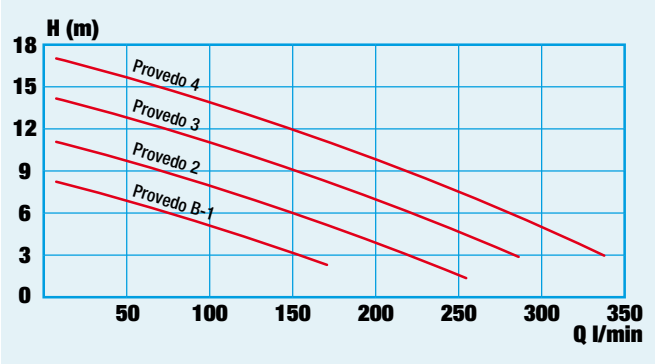

## Multigo

*Operating characteristic at 2850 rpm*



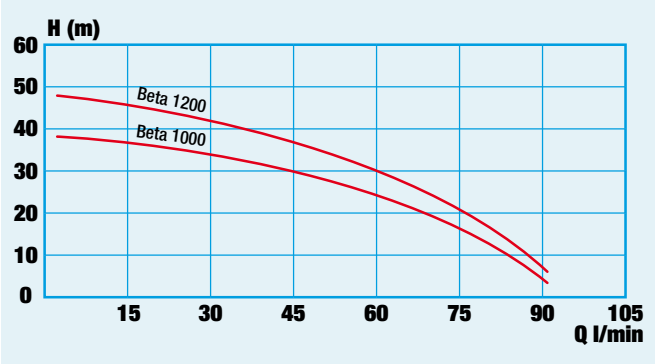

## Provedo

*Operating characteristic at 2850 rpm*



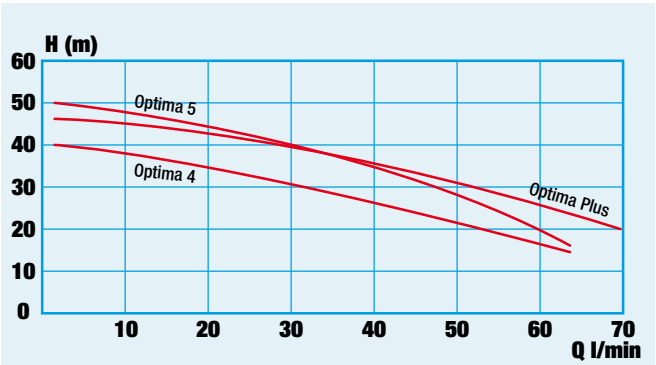

## Beta

*Operating characteristic at 2800 rpm*



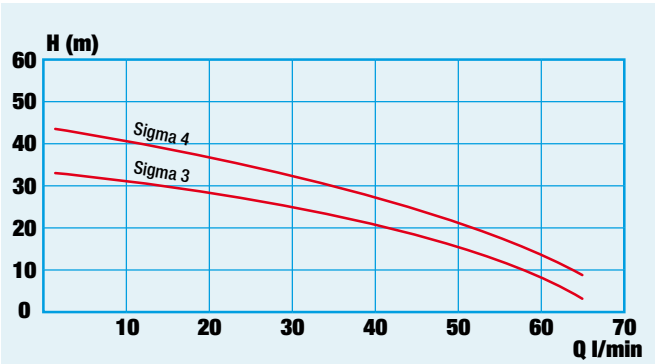

## Optima

*Operating characteristic at 2850 rpm*



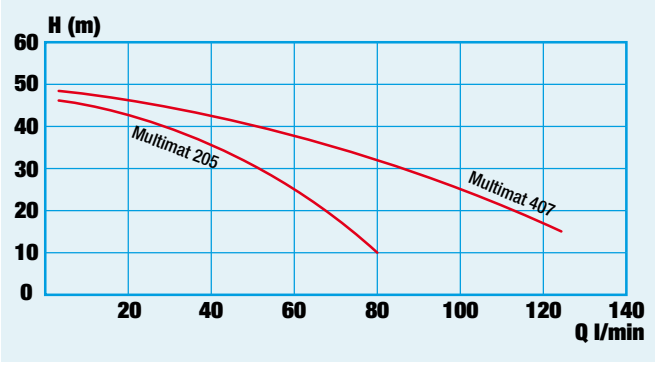

## Sigma

*Operating characteristic at 2900 rpm*



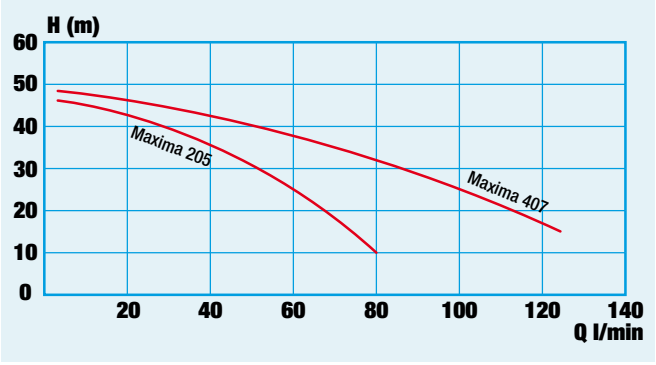

## Multimat

*Operating characteristic at 2850 rpm*



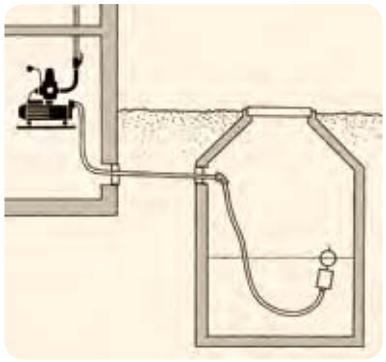

## Maxima

*Operating characteristic at 2850 rpm*

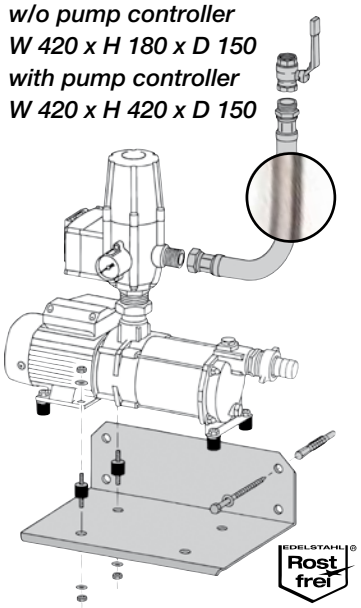


*AspriPlus with pump controller*

**+ PLUS +++**
**dirt trap, screw connection and rubber feet**

*Dimensions with pump (in mm):*
*w/o pump controller*
*W 420 x H 180 x D 150*
*with pump controller*
*W 420 x H 420 x D 150*




Self-priming, multi-stage centrifugal pump for pumping rainwater out of storage tanks. Models: AspriPlus 15/3 (3-stage), AspriPlus 15/4 (4-stage), AspriPlus 15/5 (5-stage).

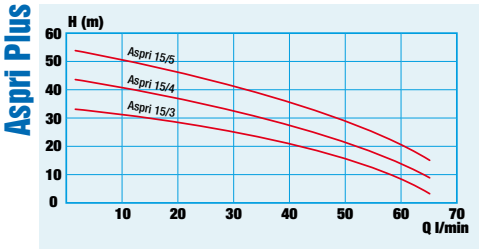
**WISY-Plus package:**
Assembled brass nipple, hose connection fitting at suction end, 1“ nozzle and integrated stainless-steel dirt trap. Fitted with rubber feet to suppress vibration and noise, 1¼” screw connection to allow easy attachment and removal of pump controller.

Pump controller SA 06, cut-in pressure 1.5 bar with pressure gauge and electric socket, 1¼” outside thread for screw connection to pump, 1“ outside thread at discharge end, operating state indicator (LEDs).

All Aspri Plus pumps have a maximum delivery rate of 66 litres per minute. The maximum delivery head is model-dependent as indicated below:

| AspriPlus | Maximum delivery head |
|---|---|
| 15/3 | 34.0 m |
| 15/4 | 45.0 m |
| 15/5 | 53.0 m |

*Operating characteristic at 2900 rpm*



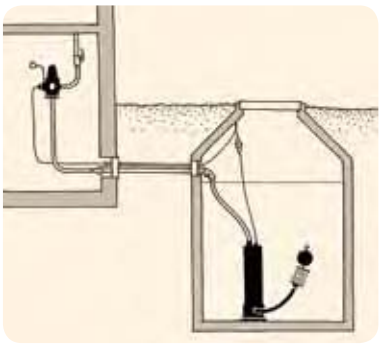

| Self-priming pump | Item No. |
|---|---|
| ● AspriPlus without pump controller | |
| 15/3 | SP 1203 |
| 15/4 | SP 1204 |
| 15/5 | SP 1205 |
| ● AspriPlus with pump controller SA 06 | |
| 15/3 | SP 1293 |
| 15/4 | SP 1294 |
| 15/5 | SP 1295 |
| ● AspriPlus with pump controller SA 06V, with cut-in pressure adjustable between 1.5 and 2.8 bar | |
| 15/3 | SP 2293 |
| 15/4 | SP 2294 |
| 15/5 | SP 2295 |

| Components/spare parts | Item No. |
|---|---|
| ● Pump controller for AspriPlus with sealed screw connections | |
| SA 06/A | SA 0650 |
| SA 06/V/A cut-in pressure adjustable between 1.5 and 2.8 bar | SA 0660 |
| ● Dirt trap without standpipe screw connection | SP 0101 |
| ● Dirt trap with suitable 3/3 standpipe screw connection | SP 9901 |

| Recommended accessories | Item No. |
|---|---|
| ● Stainless-steel wall-mounting bracket with fixings and rubber pads with doubled-ended bolt for attaching AspriPlus pumps. | WH 0300 |
| ● ¾“ connecting hose with ball valve. For making connection between pump and distribution pipework. For vibration and noise suppression. Consisting of rubber with stainless-steel braiding with ready-pressed fittings. 1“ union nut, ¾” brass ball valve with insidethread. | VS 9953 |

# Submersible pressure pump (Multigo)

*Multigo with suction-end hose nozzle and baseplate*



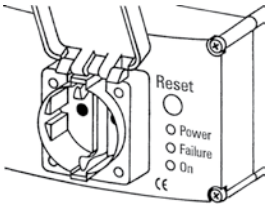
Normal-priming, multi-stage submersible pressure pump with connections for fixed or floating fine suction filters for pumping rainwater out of storage tanks.
Basic model with directly-integrated hose 1“ hose nozzle or with 1¼” suction inlet (inside thread) at suction end. Discharge end 1¼“ inside thread.

**Fully equipped with:**
3 m lifting strap, 20 m connecting cable, pump controller SA 06, cut-in pressure 1.5 bar, with pressure gauge and electric socket, 2x1” outside thread, operating state indicator (LEDs). Stainless-steel wall-mounting bracket WH 0305 with fixings and lock nut. Stable baseplate 22 cm x 22 cm (8 in. x 8 in.).

*Pump controller*


*Wall-mounting bracket*

**New: 0,2 Watt standby only!**




| Multigo | Maximum delivery rate | Maximum delivery head |
|---|---|---|
| 205 | 80 l/min. | 48 m (157 ft.) |
| 407 | 125 l/min. | 49.4 m (162 ft.) |
| 207 | 80 l/min. | 61m (200 ft.) |

▶ *Available on request: Pump controller SA 06/V available with cut-in pressure adjustable between 1.5 and 2.8 bar.*

| Submersible pressure pump | Item No. |
|---|---|
| Fully equipped Multigo with pump controller SA 06, wall-mounting bracket, lifting strap, baseplate. | |
| *Model with 1” hose nozzle at suction end* | |
| ● Multigo 205 | UP 1302 |
| ● Multigo 407 | UP 1303 |
| ● Multigo 207 | UP 1305 |
| *Model with 1¼“ connector (inside thread) at suction end* | |
| ● Multigo 205 | UP 1102 |
| ● Multigo 407 | UP 1103 |
| ● Multigo 207 | UP 1105 |

▶ *Dimensions for models with suction-end nozzle (in mm/inches):*
*Multigo 205 dia. 127 / 5 x H 496 / 19.53* *Multigo 407 dia. 127 x H 511 / 20.12*
*Multigo 207 dia. 127 x H 536 / 21.10*

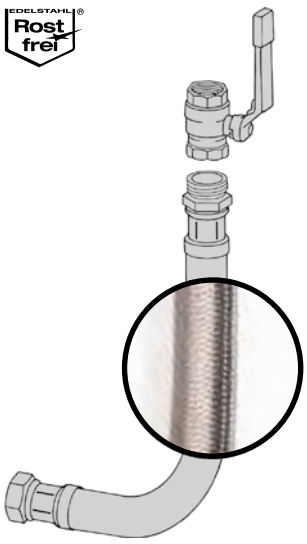
| Components/spare parts | Item No. |
|---|---|
| Multigo basic equipment with lifting strap, baseplate. | |
| *Model with 1“ hose nozzle at suction end* | |
| ● Multigo 205 | UP 1398 |
| ● Multigo 407 | UP 1397 |
| ● Multigo 207 | UP 1395 |
| *Model with 1¼“ connector (inside thread) at suction end* | |
| ● Multigo 205 | UP 1198 |
| ● Multigo 407 | UP 1197 |
| ● Multigo 207 | UP 1195 |
| *Direct suction model* | |
| ● Multigo 205 | UP 1202 |
| ● Multigo 407 | UP 1203 |
| ● Multigo 207 | UP 1205 |
| Pump controller | |
| ● SA 06 | SA 0600 |
| ● SA 06/V cut-in pressure adjustable between 1.5 bar and 2.8 bar | SA 0610 |
| ● SA 06 with wall-mounting bracket | SZ 9906 |
| ● SA 06/V with wall-mounting bracket | SZ 9907 |

*Multigo with direct suction, mounted on support bracket*

| Recommended accessories | Item No. |
|---|---|
| ● Stainless-steel support bracket for horizontal installation of submersible pumps in storage tanks, e.g. ribbed plastic cisterns. | AK 0301 |
| ● ¾“ connecting hose with ball valve. For making connection between pump and distribution pipework. For vibration and noise suppression. Rubber hose with stainless-steel braiding and ready-pressed fittings, 0.5 m (1.6 ft.), 1” union nut, ¾” brass ball valve with inside thread. | VS 9953 |
| ● Hose nozzle with 1“ non-return valve made of stainless steel | ST 1010 |
| ● Hose nozzle with 1¼“ outside thread and 1“ nozzle, brass | ZV 0433 |
| ● Float switch with cable clamp with 20 m (65.62 ft.) cable as dry run protection | SS 1013 |
| ● Adapter plug for connection of float switch | SS 0149 |


*Support bracket AK 0301*

▶ *It is recommended that the Multigo pump is operated with a hose nozzle at the discharge end.*




*Connecting hose VS 9953*

# Submersible feed pump

*Provedo VX with nozzle and baseplate*

Submersible pump with fixed level switch or float switch. For pumping clean water, e.g. out of rainwater storage tanks. With connections for fixed or floating suction filters.

Models with either 1“ nozzle, 1¼“ inside thread or direct suction.

High suction flow with low head. All parts in contact with water are made of stainless steel. Automatic startup and shutdown by float switch. 20 m (65.62 ft.) connecting cable and large, extremely stable stainless-steel baseplate.

| | Maximum delivery rate | Maximum delivery head |
|---|---|---|
| Provedo B-1 | 225 l/min. | 10.8 m (35.43 ft.) |
| Provedo VX | 225 l/min. | 11.7 m (38.39 ft.) |

*Provedo B-1 with direct suction*

| Submersible feed pump | Item No. |
|---|---|
| ● Provedo B-1<br>Model with 1“ hose nozzle at suction end and assembled baseplate 22 cm x 22 cm (8 in. x 8 in.) | UP 1322 |
| ● Provedo B-1<br>Model with 1¼“ connector (inside thread) at suction end and assembled baseplate 22 cm x 22 cm (8 in. x 8 in.) | UP 1122 |
| ● Provedo VX<br>with fixed mounted level switch, 20 m (65.62 ft.) connecting cable 1“ nozzle at suctionend, 1“ nozzle with integrated non-reture valve at pressure end.<br>Ready assembled baseplate 22 cm x 22 cm (8 in. x 8 in.).<br>This model is compatible with Optima and Maxima rainwater units | UP 1322 VX |
| ● Provedo B-1<br>with direct suction and with float and with loose float switch | UP 1113 |
| ● Provedo B-1<br>with direct suction, without float switch | UP 1111 |

| Recommended accessories | Item No. |
|---|---|
| Stainless-steel switch lever for precise control of the float switch, universal fit.<br>Defines switching points precisely. | |
| ● With clamp 110 – 130 mm (4 – 5 in.) | SH 0302 |
| ● With clamp 140 – 160 mm (5.5 – 6.3 in.) | SH 0300 |
| ● With clamp 170 – 190 mm (6.7 – 7.5 in.) (e.g. for Provedo 2-4) | SH 0301 |

# Submersible feed pump for large installations

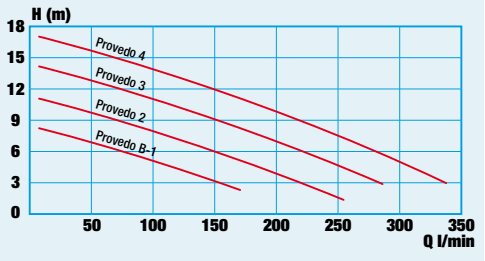
*Provedo for large installations*

| For large installations | Item No. |
|---|---|
| Provedo equipment for large installations with 2” suction inlet (outside thread), 1 ½” discharge connector (inside thread). | |
| ● Provedo-2 | UP 0126 |
| ● Provedo-3 | UP 0127 |
| ● Provedo-4 | UP 0128 |

| Provedo | Maximum delivery rate | Maximum delivery head |
|---|---|---|
| 2 | 260 l/min. | 12.0 m (39 ft.) |
| 3 | 280 l/min. | 14.0 m (46 ft.) |
| 4 | 330 l/min. | 17.0 m (55 ft.) |

## Provedo

*Operating characteristic at 2850 rpm*




# Fixed-mounted suction filter for submersible pumps

FINE filtering

*SF 9921*



*SF 9924*

| FINE suction filter for fixed mounting | Item No. |
|---|---|
| Filter made entirely of stainless steel, with connector 1“ outside thread or 1¼“ inside thread, filter mesh size 0.3 mm (0.01 in.). With fitting for direct connection to 1¼“ pump suction inlet. | |
| ● FAFF submersible pump connection with 1¼“ brass elbow and screw connections | SF 9921 |
| ● FAFF extended version with 1” elbow with 1“ outside thread | SF 9924 |

COARSE filtering

*SG 0351*

*SG 0334*

| COARSE suction filter for fixed mounting | Item No. |
|---|---|
| Filter made entirely of stainless steel, with connection with outside thread. Filter mesh size 1.2 mm (0.05 in.) | |
| FAGF submersible pump connection | |
| ● 1“ connection outside thread | SG 0331 |
| ● 1¼“ connection outside thread | SG 0332 |
| ● 1½“ connection outside thread | SG 0333 |
| ● 2“ connection outside thread | SG 0334 |
| ● 1“ connection inside thread | SG 0351 |

*SG 0332*

*ZW 0500*

| Accessories | Item No. |
|---|---|
| ● 90° elbow with nipple, for connection to SG 03 32, for 1 ¼” pump suction inlet | ZW 0500 |

# Floating suction filter sets WITHOUT non-return valve

The floating suction filters for submersible pressure pumps are available as a fine filter (SAFF) with mesh size 0.3 mm (0.01 in.) or as a coarse filter (SAGF) with mesh size 1.2 mm (0.05 in.). The fine filters are suitable for water which has not been pre-filtered, e.g. from open waters, storage tanks or fountains. To protect the pump, coarse suction filters should be used only with water which has been pre-filtered, especially rainwater from storage tanks or other containers. The models for submersible pressure pumps have no non-return valve. By contrast, the models for suction pumps are equipped with a non-return valve in order to maintain the suction column in the suction hose.

***To aid selection of the correct filter type:***
***Suction pumps: with non-return valve***
***Pressure pumps: without non-return valve***

*Fine filter body*

*SAFF submersible pump connection*

**FINE filtering** with 0.3 mm (0.01 in.) mesh size

**SAFF submersible pump connection set consisting of:**
– SAFF 1“ without non-return valve
– Float dia. 15 cm (5.91 in.)
– Highly flexible suction hose, length 1 m (3.28 ft.)

▶ *Available for 1“ nozzle or with screw connections for 1¼“ connector (inside thread)*

*Connection for nozzle*

*Connection for thread*

*1¼“ version with suction hose with integral metal spiral, for higher-performance pumps.*

| SAFF set without non-return valve | Item No. |
|---|---|
| ● Set for submersible pumps with 1“ nozzle<br>SAFF 1“, high-flexibility hose 1“ | SS 9935 |
| ● Set for submersible pumps with 1 ¼“ inside thread connector<br>SAFF 1“, high-flexibility hose 1“, with screw connection | SS 9931 |
| ● Set for submersible pumps with 1 ¼“ inside thread connector<br>SAFF 1 ¼ “, suction hose 1 ¼“, with screw connection | SS 9932 |

*Coarse filter body*

*SAGF submersible pump connection*

**COARSE filtering** with 1.2 mm (0.05 in.) mesh size

**SAGF submersible pump connection set consisting of:**
– SAGF 1“ without non-return valve
– Float dia. 15 cm (5.91 in.)
– Highly flexible suction hose, length 1 m (3.28 ft.)

| SAGF set without non-return valve | Item No. |
|---|---|
| ● Set for submersible pumps with 1“ nozzle<br>SAGF 1“, high-flexibility hose 1“ | SS 9905 |
| ● Set for submersible pumps with 1 ¼“ inside thread connector<br>SAGF 1“, high-flexibility hose 1“, with screw connection | SS 9901 |
| ● Set for submersible pumps with 1 ¼“ inside thread connector<br>SAGF 1 ¼ “, suction hose 1 ¼“, with screw connection | SS 9902 |

**Water extracted from clear water area of rainwater storage tank!**

*Fine filter body*

*SAFF suction pump connection*

**FINE filtering** with 0.3 mm (0.01 in.) mesh size

Filter body with stainless-steel filter mesh, mesh size 0.3 mm (0.01 in.), with non-return valve.
Float made of environmentally friendly polyethylene.

**SAFF suction pump connection set consisting of:**
– SAFF 1“, with non-return valve,
– Float dia. 15 cm (5.91 in.)
– Highly flexible suction hose, attached by stainless-steel hose clamps,
– 90° PE elbow connector to PE pipe 32 x 3 mm (1“).

*Connection for PE pipe*

| SAFF set with non-return valve | Item No. |
|---|---|
| Set with floating fine suction filter SAFF with non-return valve | |
| ● With 2 m (6 ½ ft.) suction hose | SZ 9801 |
| ● With 3 m (10 ft.) suction hose | SZ 9802 |

*Coarse filter body*

*SAGF suction pump connection*

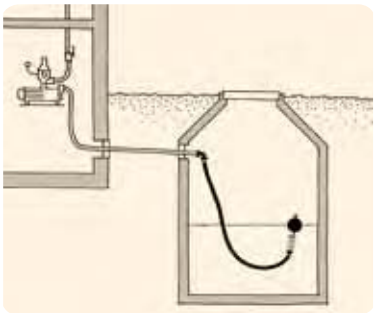
**COARSE filtering** with 1.2 mm (0.05 in.) mesh size

Filter body with stainless-steel filter mesh, mesh size 1.2 mm (0.05 in.), with non-return valve.
Float made of environmentally friendly polyethylene.

**SAGF suction pump connection set consisting of:**
– SAGF 1“, with non-return valve,
– Float dia. 15 cm (5.91 in.)
– Highly flexible suction hose, attached by stainless-steel hose clamps,
– 90° PE elbow connector to PE pipe 32 x 3 mm (1”).

*Connection for PE pipe*

| SAGF set with non-return valve | Item No. |
|---|---|
| Set with floating coarse suction filter SAGF with non-return valve | |
| ● With 2 m (6 ½ ft.) suction hose | SZ 9811 |
| ● With 3 m (10 ft.) suction hose | SZ 9812 |



**Note!**

**Flexible hose can only be used with suction pumps which are controlled by a pump controller with non-return valve! Expansion tanks with pressure switch only are not suitable!**

# Floating FINE suction filter (SAFF)


For extracting rainwater from rainwater storage tanks and other containers or from ponds and fountains. Float made of environmentally friendly polyethylene. All other parts made of stainless steel. The nozzles at the floating filters are rounded in order to protect the hoses. The hose remains fully functional and durable even when the float frequently changes position in the tank. The nozzles are also equipped with a flared collar to allow secure attachment of the hose.

Fine filter mesh size *0,3 mm (0.01 in.).*

| Connection | Filter surface | Height x dia. | Float |
|---|---|---|---|
| 1“ | 380 cm² | 120 mm x 120 mm | dia. 15 cm |
| 1¼“ | 380 cm² | 120 mm x 120 mm | dia. 15 cm |
| 1½“ | 800 cm² | 170 mm x 220 mm | dia. 22 cm |
| 2“ | 1100 cm² | 235 mm x 220 mm | dia. 22 cm |

**FINE filtering with 0.3 mm (0.01 in.) mesh size**


| Standard | Item No. | Price/€ |
|---|---|---|
| ● SAFF with float dia. 15 cm (5.91 in.) *With integrated non-return valve* | | |
| With 1“ hose nozzle | SZ 9924 | |
| With 1¼“ hose nozzle | SZ 9925 | |
| ● SAFF with float dia. 15 cm (5.91 in.) *Without non-return valve* | | |
| With 1“ hose nozzle | SZ 9935 | |
| With 1¼“ hose nozzle | SZ 9936 | |
| With 1“ outside thread | SZ 9926 | |

| For large installations | Item No. |
|---|---|
| ● SAFF with float dia. 22 cm (8.66 in.) | |
| With 1½“ outside thread | SZ 9930 |
| With 2“ outside thread | SZ 9931 |

| Accessories and components/spare parts for large installations | Item No. |
|---|---|
| ● Hose nozzle made of stainless steel, with non-return valve | |
| With 1½“ nozzle *(for Item No. SZ 9930)* | RT 0330 |
| With 2“ nozzle *(for Item No. SZ 9931)* | RT 0331 |
| ● Stainless-steel hose clamp | |
| 1½“, 45–60 mm clamping range | SS 0305 |
| 2“, 55–70 mm clamping range | SS 0306 |
| ● 2-part brass hose fitting, Nordic, flat-sealing | |
| 1½“ nozzle, 1½“ union nut | ZV 0464 |
| 2“ nozzle, 2“ union nut | ZV 0465 |

*Hose nozzle/ non-return valve*

*2-part brass hose fitting*

*Coarse filter body*

*FCSF SZ 9915*

For extracting clean rainwater from storage tanks and other containers. With float made of environmentally friendly polyethylene. All other parts made of stainless steel.

Filter mesh size *1.2 mm (0.05 in.)*

| Connection | Filter surface | Height x dia. | Float |
|---|---|---|---|
| 1“ | 165 cm² | 110 mm x 60 mm | dia. 15 cm |
| 1¼“ | 165 cm² | 110 mm x 60 mm | dia. 15 cm |
| 1½“ | 380 cm² | 150 mm x 100 mm | dia. 15 cm |
| 2“ | 380 cm² | 150 mm x 100 mm | dia. 15 cm |

**COARSE filtering with 1.2 mm (0.05 in.) mesh size**

| Standard | Item No. |
|---|---|
| ● SAGF with float dia. 15 cm (5.91 in.) with hose nozzle. *With integrated non-return valve* | |
| With 1“ hose nozzle | SZ 9915 |
| With 1¼“ hose nozzle | SZ 9916 |
| ● SAGF with float dia. 15 cm (5.91 in.) with hose nozzle. *Without non-return valve* | |
| With 1“ hose nozzle | SZ 9927 |
| With 1¼“ hose nozzle | SZ 9928 |

*Coarse filter body*

*SAGF SZ 9990*

| For large installations | Item No. |
|---|---|
| ● SAGF with float dia. 15 cm (5.91 in.) with hose nozzle *With integrated non-return valve* | |
| With 1½“ hose nozzle | SZ 9917 |
| With 2“ hose nozzle | SZ 9918 |
| ● SAGF with float dia. 15 cm (5.91 in.) with hose nozzle. *Without non-return valve* | |
| With 1½“ hose nozzle | SZ 9990 |
| With 2“ hose nozzle | SZ 9991 |

# WISY rainwater storage tanks with complete equipment

WISY rainwater storage tanks are compression-resistant vessels made of environmentally friendly polyethylene which are manufactured seamlessly in one piece. They are designed for installation outdoors, in halls or below ground.

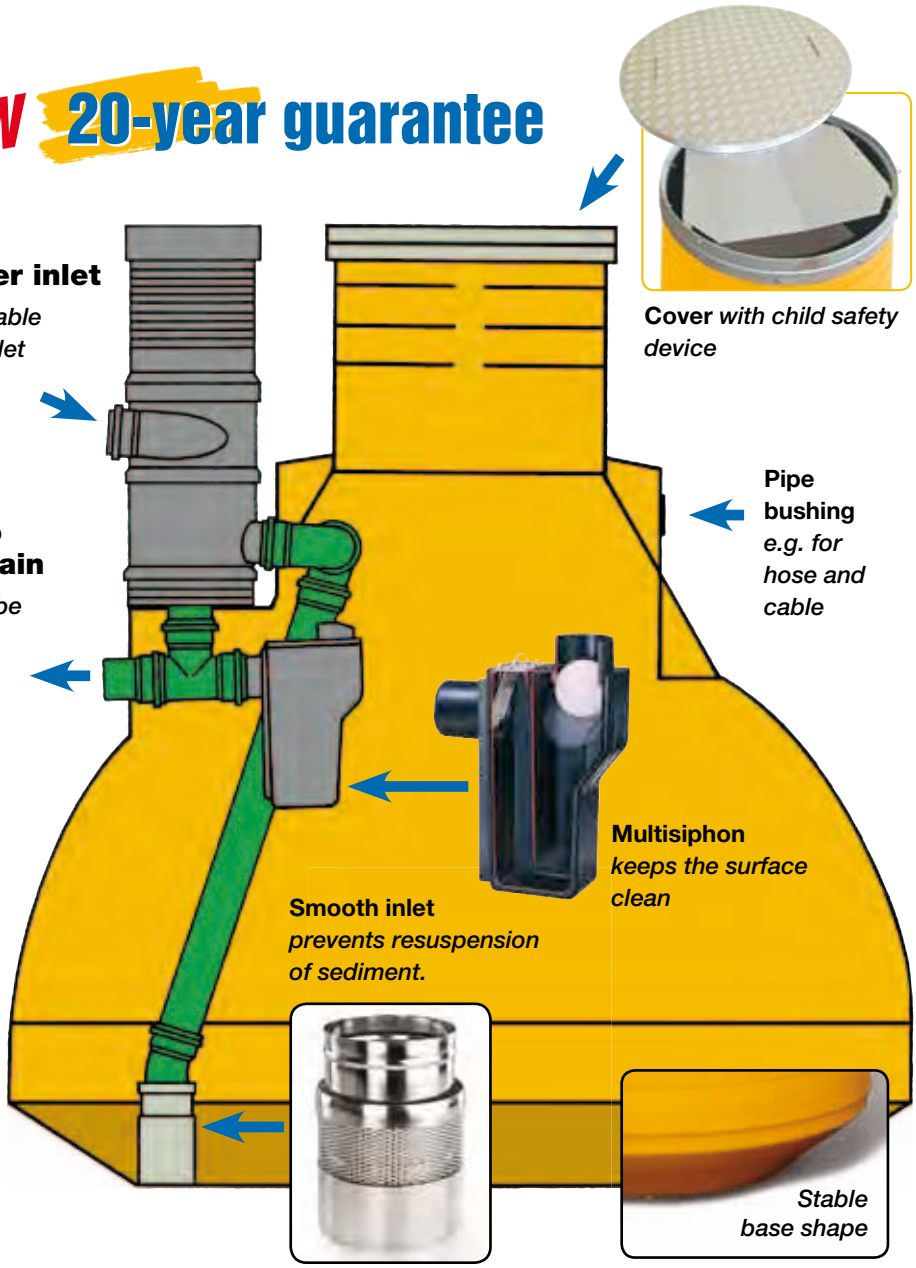
WISY storage tanks are extremely stable, making them the ideal solution for every application. They have vehicle-duty capacity. Due to its lightweight the storage tank can be moved and installed with light lifting equipment or lifting straps.

When the excavated pit is filled up with gravel the storage tanks is fully supported from below. The storage tanks are equipped with a child safety device (tested by German Technical inspection authority) and a non-slip cover. The tanks have two rugged lifting eyes to lift or lower the tank into the excavation pit. For additional safety the tanks have a compressed water equalizing valve in the base of the tank for the event that groundwater collects around the tank.

## The benefits!

- **Leak-tight**
  Tanks manufactured without seams from environmentally friendly polyethylene
- **Easy to service**
  Large access shaft (dia. 70 cm (2.3 ft.) for ease of entry for maintenance work
- **Clean**
  Smooth inside walls prevent build-up of deposits and ensure good hygiene and water quality
- **Light**
  Low weight, making them easy to transport and handle on site
- **Ready to connect**
  Quick and easy to install with pipe bushings DN 100 with fitted seals
- **Safe**
  Non-slip cover with certified (by TÜV) child safety device
- **20-year guarantee**
  on the durability of the tank materials.

## NEW 20-year guarantee



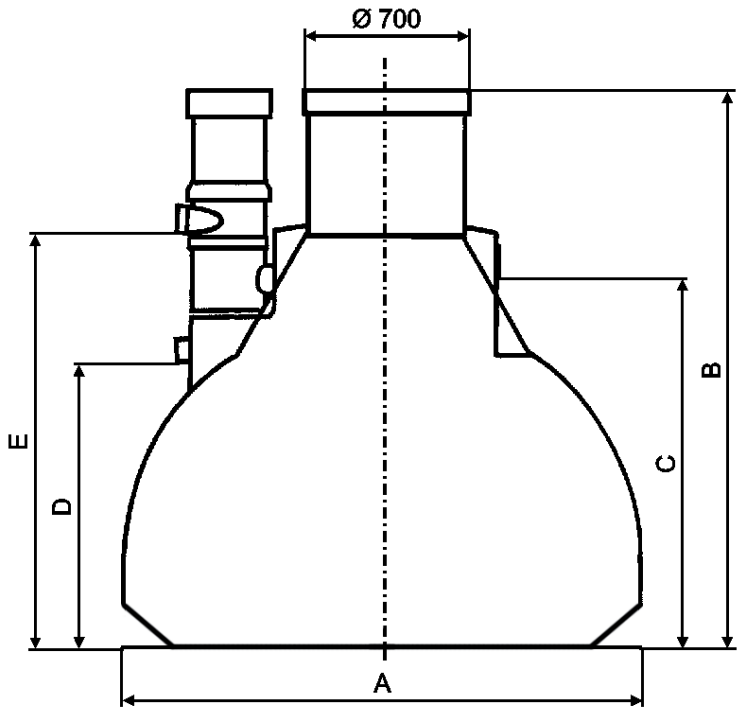
## Special note!

**If the tank is installed below ground, it must be positioned at a sufficient distance from ground-water sources (i.e. perched water table in hillsides).**

## WISY makes the adjustment possible!

WISY storage tanks have a defined height which can be reduced by shortening the access shaft or increased using an extension tube in order to adapt the storage tank to ground level. The height of the tank can be shortened or extended about 30 cm (11.8 inch.) maximum.

| Rainwater storage tanks with complete equipment | Item No. |
|---|---|
| ● *4.5 m³ (US: 1188 gallons) volume* | |
| Aluminium cover, pedestrian duty | RS 1450 |
| Steel cover, vehicle duty | RS 1460 |
| ● *5.5 m³ (US: 1451 gallons) volume* | |
| Aluminium cover, pedestrian duty | RS 2450 |
| Steel cover, vehicle duty | RS 2460 |
| ● *6.5 m³ (US: 1715 gallons) volume* | |
| Aluminium cover, pedestrian duty | RS 3450 |
| Steel cover, vehicle-duty | RS 3460 |




| Item No. | Volume | Weight (kg) | Diameter A | Tank height B | Service duct connection C | Storm drain connection D | Rainwater inlet E |
|---|---|---|---|---|---|---|---|
| RS 1450 / RS 1460<br>RS 1100 / RS 1110 | 4.5 m³ | 250<br>220 | dia. 2350 | 2510 | 1690 | 1285 | 1895 |
| RS 2450 / RS 2460<br>RS 2100 / RS 2110 | 5.5 m³ | 280<br>250 | dia. 2350 | 2770 | 1950 | 1545 | 2155 |
| RS 3450 / RS 3460<br>RS 3100 / RS 3110 | 6.5 m³ | 310<br>280 | dia. 2350 | 3020 | 2200 | 1795 | 2405 |

*All dimensions (in mm) may vary as a result of manufacturing tolerances. The dimensions of the pipes and bushings refer in each case to the bottom of the pipe.*

NEW 20-year guarantee

# Basic equipment:

***The WISY rainwater storage tank with a cover, child safety device and end ring.***

***The covers are available in aluminium (pedestrian duty) or steel (vehicle duty) (vehicles as defined by DIN 1072).***

***Two rugged lifting eyes in end ring.***

***Three connection bores in the tank wall with tank seals DN 100 and plugs DN 100***

| Rainwater storage tanks - basic equipment | Item No. |
|---|---|
| ● *4.5 m³ (US: 1188 gallons) volume* | |
| Aluminium cover, pedestrian duty | RS 1100 |
| Steel cover, vehicle duty | RS 1110 |
| ● *5.5 m³ (US: 1451 gallons) volume* | |
| Aluminium cover, pedestrian duty | RS 2100 |
| Steel cover, vehicle duty | RS 2110 |
| ● *6.5 m³ (US: 1715 gallons) volume* | |
| Aluminium cover, pedestrian duty | RS 3100 |
| Steel cover, vehicle duty | RS 3110 |

# WISY storm water retention storage 6.5m³ with complete equipment

WISY storm water retention tanks offer an additional retention volume with throttled outlet in addition to the useful volume for rainwater harvesting. The retention volume and outlet must be selected according to urban land use planning guidelines.

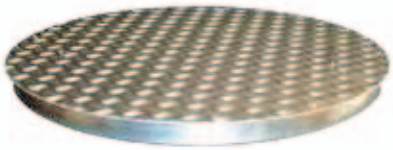
*The WISY rainwater storage tank is also available as a combined rainwater/storm water retention tank*

**The WISY retention tanks 6.5 m³ made of PE offer:**
– Full functionality with vortex fine filter, smooth inlet, multisiphon overflow
– Retention volume of 1500 l, 2000 l or 2500 l is possible
– Floating coarse suction filter (SAGF) with throttle to regulate volumetric flow rates
– Plug-in system, shipped with all parts pre-assembled
– Storage tank access shaft with end ring, child safety device and aluminium pedestrian-duty cover or optionally steel vehicle-duty cover

| 6 m³ retention storage* | Item No. |
|---|---|
| ● 1500 l retention volume | |
| with pedestrian-duty aluminium cover | RT 3350.15 |
| with steel cover, vehicle-duty | RT 3360.15 |
| ● 2000 l retention volume | |
| with pedestrian-duty aluminium cover | RT 3350.20 |
| with steel cover, vehicle-duty | RT 3360.20 |
| ● 2500 l retention volume | |
| with pedestrian-duty aluminium cover | RT 3350.25 |
| with steel cover, vehicle-duty | RT 3360.25 |

** With rainwater inlet DN 100, inlet DN 150 also available.*

*Steel or aluminium cover*



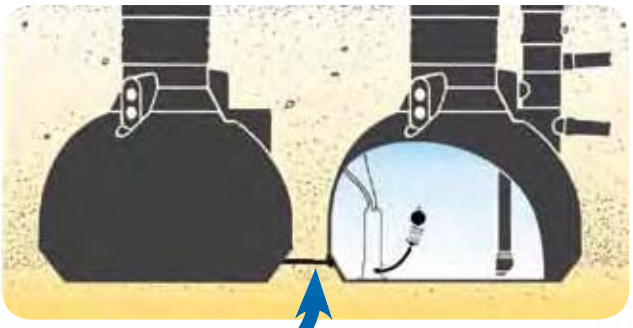
*Child safety device*

*Intermediate ring*

*Extension tube for rainwater storage tanks*

| Recommended accessories for rainwater storage tanks | Item No. |
|---|---|
| ● Extension tube for rainwater storage tank *(PE)*, to raise inspection opening to ground level. Yellow. dia. 70 cm (2.3 ft.), per 10 cm (4 in.) | RV 1010 |
| ● Extension tube for vortex fine filter *(PP)*, to raise inspection opening to ground level. dia. 30 cm (11.8 in.), length 50 cm (1.6 ft.), see page 6 | WV 1010 |
| ● Intermediate ring for rainwater storage tank. Required to connect the extension tube | RS 1020 |
| ● End ring with certified child safety device required to connect steel or aluminium cover | RA 1020 |
| ● Steel cover, zinc-plated, non-slip, *vehicle duty* acc. to ATV A127 | RS 1030 |
| ● Non-slip aluminium cover, *pedestrian duty* according to DIN 1989-3 | RS 1031 |
| ● Soakaway strainer for vortex fine filter | VS 0304 |
| ● Wall bushing WD 110/2 with six bores:<br>1 x 50 mm (2 in.) diameter, for mains water feed<br>1 x 32 mm (1.4 in.) diameter, for pressure or suction line (1" PE tube)<br>3 x 10 mm (0.4 in.) diameter for electric cable<br>1 x 6 mm (0.2 in.) diameter for electric cable | WD 2110 |
| ● Tank connection set for coupling two rainwater storage tanks to create one unit. Consists of: Two brass tank bushings and 2 m (6.5 ft.) flexible tube, DN 40 | RS 1040 |
| ● Blind insert for vortex fine filter | BE 0302 |

*Wall bushing for house and tank walls*



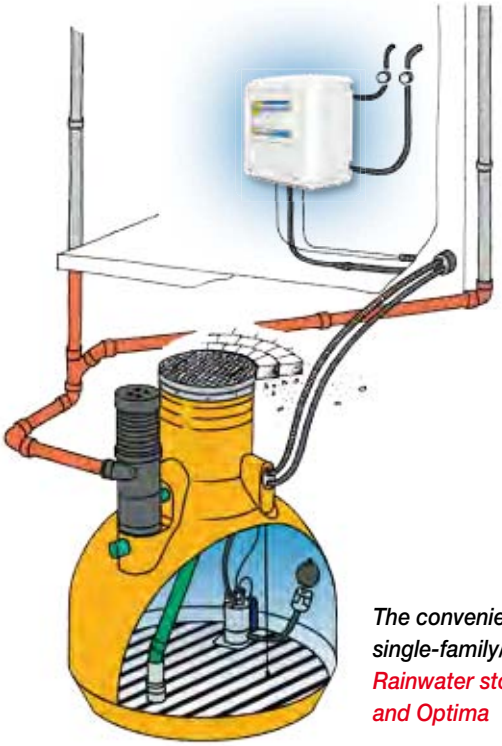
*When 2 storage tanks are connected by a flexible hose, make sure that there is some slack in the flexible hose.*

*Tank connection set*

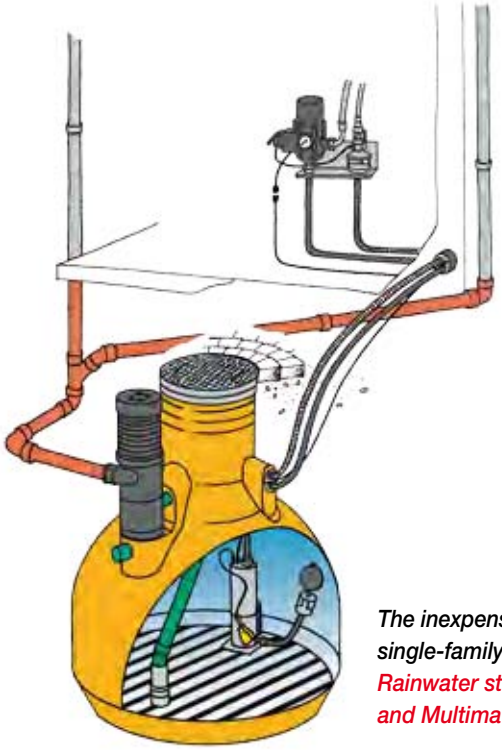
**Complete installations**

WISY rainwater harvesting installations consist of:

## WISY rainwater storage tank and WISY rainwater unit



*The convenient solution for single-family/two-family homes: Rainwater storage tank and Optima*



*The inexpensive solution for single-family/two-family homes: Rainwater storage tank and Multimat*

| Complete installation | Item No. |
|---|---|
| **with Optima rainwater unit** | |
| ● Rainwater storage tank 5,5 m³ (US: 1452.95 gallons) with complete equipment, consists of WFF 100, inflow calming, multisiphon, pedestrian duty* | RS 2450 |
| ● Optima 4 without level indicator, with floating suction filter | RW 9924 |
| ● Hose connection set for Optima, consisting of two hose assemblies and two ball valves. | RW 7800 |
| ● 2 surface-mounted water meters | RW 7010 |
| ● Wall bushing WD 100 with 4 bores | WD 1100 |
| ● Pressure hose 1“, length 10 m | DS 2003 |
| ● 1“ nozzle with union nut | ZV 0462 |
| ● Hose clamp 1“, 2 units | SS 0303 |
| **Package price:** | KA 4043 |

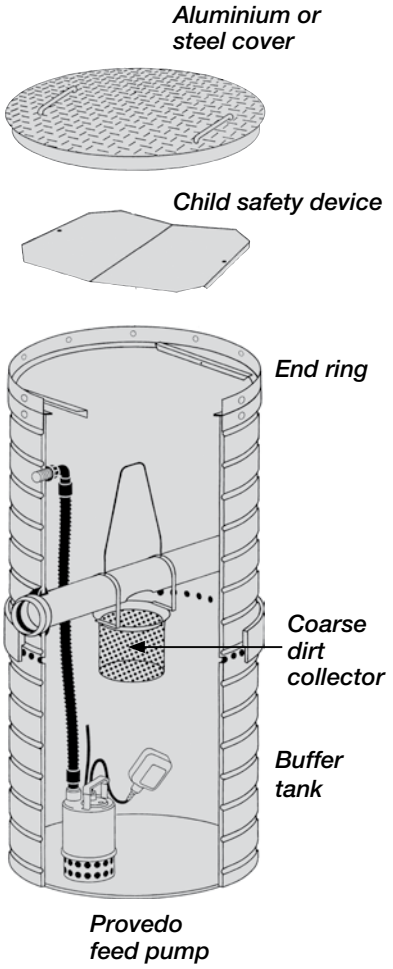
| Complete installation | Item No. |
|---|---|
| **with Multimat rainwater unit** | |
| ● Rainwater storage tank 5,5 m³ (US: 1452.95 gallons) with complete equipment, consists of WFF 100, inflow calming, multisiphon, pedestrian duty* | RS 2450 |
| ● Multimat with Multigo 205 | RW 9008 |
| ● Hose connection set for Multimat, consisting of two hose assemblies and two ball valves | RW 7001 |
| ● 2 surface-mounted water meters | RW 7010 |
| ● Wall bushing WD 110/2 with 6 bores | WD 2110 |
| ● Adapter flexible tube to tundish | WD 2021 |
| ● Flexible tube DN 50, 25 m roll | WD 2000 |
| ● Pressure hose, length 10 m | DS 2003 |
| ● 3-part brass standpipe connector | ZV 0452 |
| ● Hose clamp 1“, 2 units | SS 0303 |
| **Package price:** | KA 4517 |

**Extra-charge for vehicle-duty version: € 100.00*

*An empty tube DN 100 must be planned between the storage tank and utility room and installed along a gradient to the tank.*

**For biologically active surface infiltration of rainwater**

The excess rainwater from storage tank overflow and drainage through the filter flows into the soakaway system. When the maximum level is reached, water is automatically pumped to the surface as a fountain and then allowed to infiltrate back into the ground. The pump switches off when the tank is empty until the maximum level is reached again. Frost proof.




| Soakaway systems | Item No. |
|---|---|
| ● Soakaway system | SI 1000 |

**Consists of:**

Buffer tank *(PE)*, pedestrian-duty, non-slip manhole cover (aluminium) with child safety device

PE inlet tube DN 100. Removable coarse dirt collector (made of stainless steel)

Provedo feed pump with float switch and direct suction for on and off intervals, 1“ nozzle at discharge end

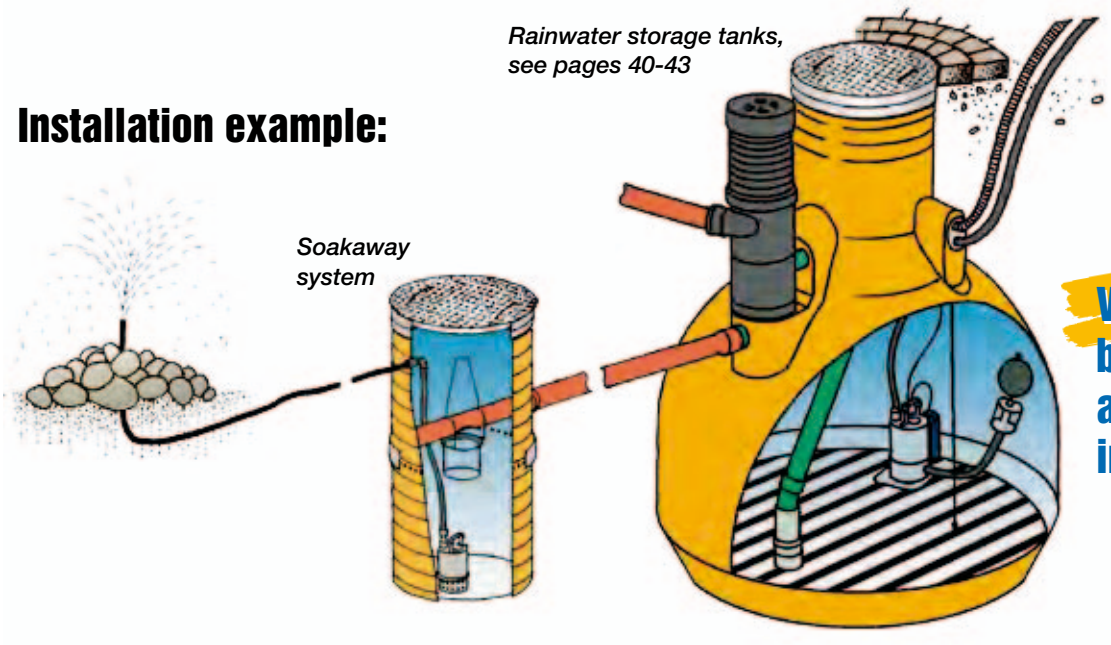
Outlet connection 1“ outside thread, for open soakaway at any location

Tank height 145 cm (58.09 in.), tank diameter 70 cm (2.3 ft. )

| Components/spare parts/accessories | Item No. |
|---|---|
| ● Extension tube *(PE)* to raise inspection opening to ground level. Dia. 70 cm (2.3 ft.), length selectable up to max. 140 cm (4.5 ft.) price per 10 cm (4 in.) | RV 1010 |
| ● Intermediate ring, required to connect the extension tube | RS 1020 |
| ● End ring with certified child safety device required to connect the aluminium cover | RA 1020 |
| ● Coarse dirt collector with lifting handle | SI 1050 |
| ● Provedo feed pump with float switch | UP 1113 |
| ● Non-slip aluminium cover, *pedestrian-duty according to DIN 1989-3* | RS 1031 |

## Installation example:

*Rainwater storage tanks, see pages 40-43*




**WISY advocates biologically active surface infiltration!**

*Multisiphon and retaining clamp*

**Multi-functional overflow for rainwater storage tank**

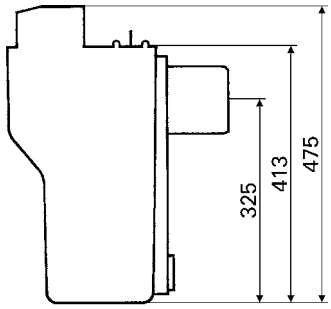
Made of impact-resistant ABS plastic. For connection to the tank overflow (DN 100). Surface debris removed by skimming effect. Prevents storm drain odours from reaching the storage tank. Brace pipe prevents tilting or tipping. Large siphon volume 6 l (1.5 gallons).

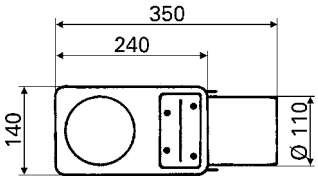
▶ *Available in different versions:*
*With or without drain backflow prevention*
*with or without vermin guard*

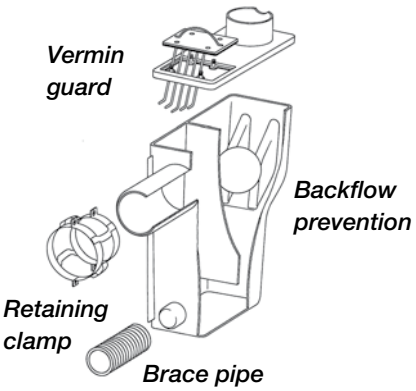
The version with integrated drain backflow prevention is delivered with a retaining clamp for connection to a DN 100 (3.9 in.) pipe.

The passive vermin guard is made of stainless steel and is easy to remove for maintenance.

| Multisiphon | Item No. |
|---|---|
| ● Multisiphon with drain backflow prevention | |
| without vermin guard | US 1004 |
| with vermin guard | US 1002 |
| ● Multisiphon without drain backflow prevention | |
| without vermin guard | US 1005 |
| with vermin guard | US 1003 |



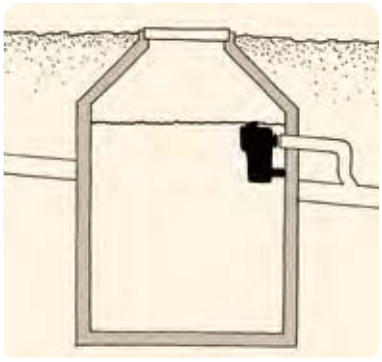




**Exclusively from WISY!**

**6 functions in one!**

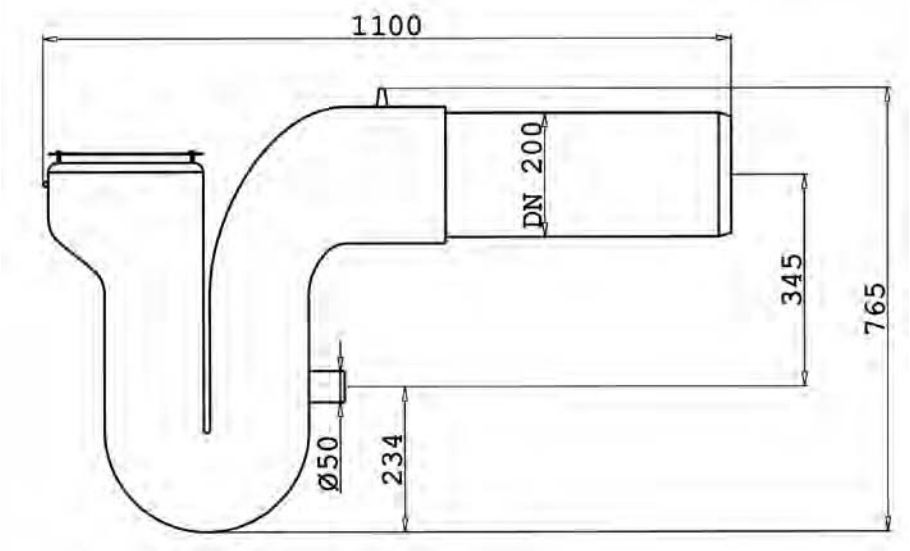
- **Odour seal**
- **Vermin guard**
- **Backflow prevention**
- **Overflow with skim effect**
- **Gas barrier**



*Storm drain or soakaway*

| Accessories | Item No. |
|---|---|
| ● Stainless-steel retaining clamp for connection to a DN 100 (3.9 in.) pipe | US 1010 |

| Siphon | Item No. |
|---|---|
| ● Overflow siphon DN 200 made of stable polyethylene for storage tanks. Suitable for combination with the WFF 300 vortex filter. With odour seal, vermin guard, brace pipe, 2 x 1 m (3.28 in.) stainless-steel chain for attaching to ceiling or wall | US 2000 |

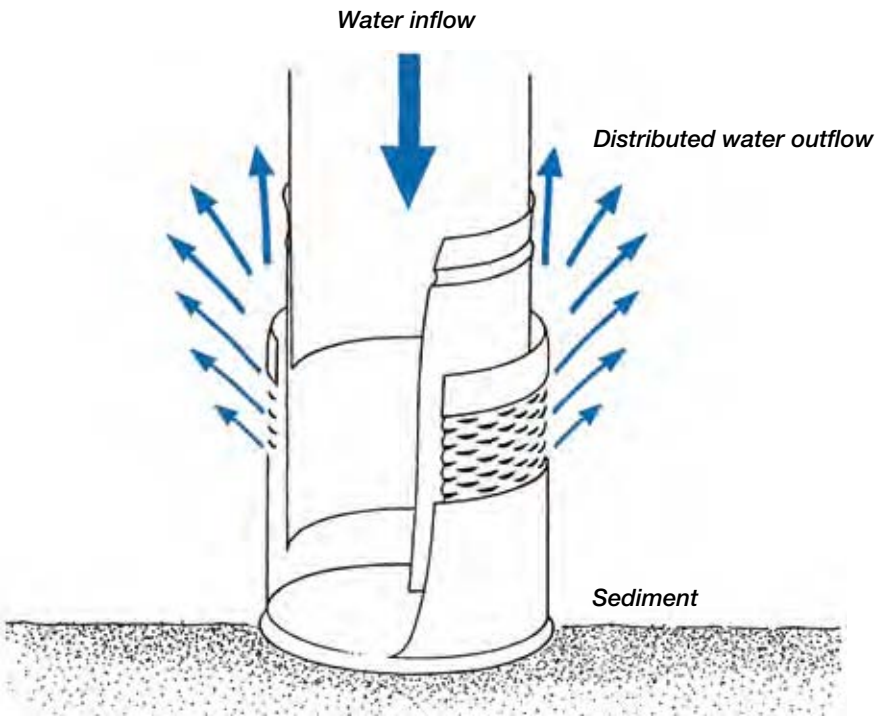



# Smoothing inlet

Prevents resuspension of sediment and distributes the fresh, oxygen-rich rainwater in the storage tank.

| Stainless steel smoothing inlet | Item No. |
|---|---|
| ● Smoothing inlet for DN 100 | EB 0300 |
| ● Smoothing inlet for DN 200, inside diameter 204 mm (8.03 in.) | EB 0303 |
| ● Smoothing inlet inside diameter 222 mm (8.74 in.) | EB 0304 |

**Smoothing inlet DN 200 compatible with WISY WFF 300 vortex fine filter**



# Level indicator (pneumatic)

*Level indicator*

Indicates the fill level of the storage tank in per cent. Pneumatic measuring instrument for remote measurement at distances up to 50 m. Steplessly adjustable for tanks with maximum fill levels from 1 to 2.5 metres.

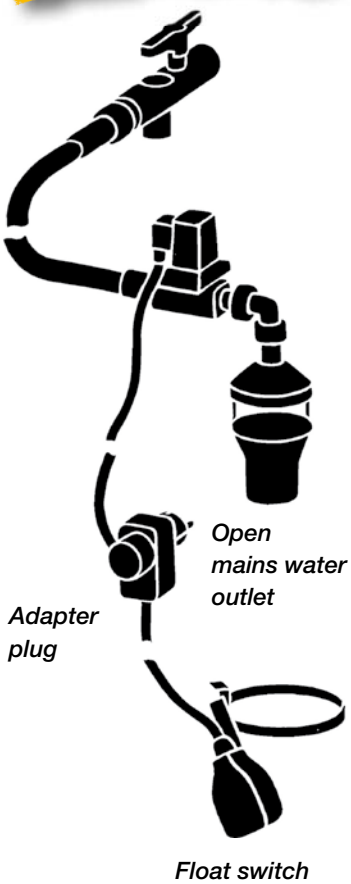
Impact-resistant plastic casing. With 10 m measuring lead and fixings.

| **Level indicator** | **Item No.** |
|---|---|
| Level indicator | |
| ● with manual actuation pump | FA 99 10 |
| ● with electric pump | FA 99 11 |

| **Accessories** | **Item No.** |
|---|---|
| ● Measuring lead extension for longer distances to storage tank, length 10 m | FA 99 15 |

# Mains water top-up set

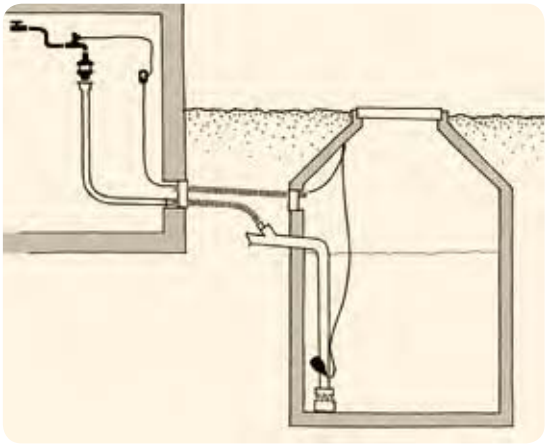
**Complete set of ready-to-use components!**




For mains water top-up, tops up the rainwater storage tank with mains water as required during prolonged dry spells (daily requirement for single-family home). Complies with DIN EN 1717.

**Top-up set comprising:**
– Open mains water outlet ½“ *(Item No. TW 9901)*
– Adapter plug *(Item No. SS 0149)*
– Float switch for top-up, with retaining clamp, 3 m, 10 m or 20 m (9 ft., 32 ft. or 65 ft.) connecting cable *(see item numbers SS 1001, SS 1002 or SS 1003)*

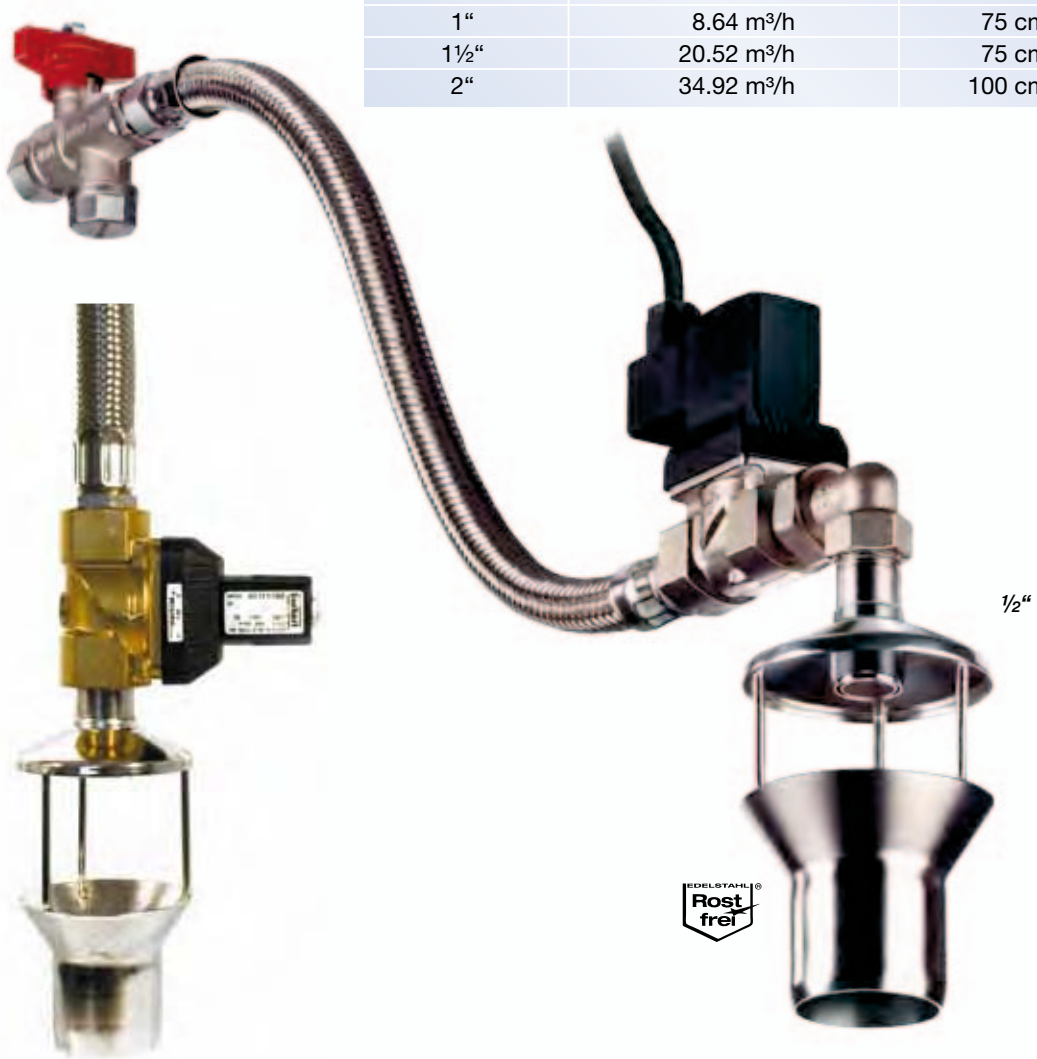
| **Top-up set** | **Item No.** |
|---|---|
| Top-up set | |
| ● with 3 m (9 ft.) connecting cable | TW 88 03 |
| ● with 10 m (32 ft.) connecting cable | TW 88 10 |
| ● with 20 m (65 ft.) connecting cable | TW 88 20 |



Mains water top-up with open outlet, ready to install. Electrically controlled. Comprises a stainless steel tundish with nozzle for splash-free inflow, solenoid valve with connecting cable and electric plug, connecting tube with stainless steel braiding and brass ball valve with stainless steel dirt trap *(mesh width 0.65 mm (0.03 in.))*.

▶ *Available from ½“ to 2“. Complies with DIN EN 1717.*

| Connection | Water top-up rate with 3 bar system pressure | Connecting hose | Tundish |
|---|---|---|---|
| ½“ | 2.64 m³/h | 50 cm | DN 50 |
| ¾“ | 6.48 m³/h | 50 cm | DN 50 |
| 1“ | 8.64 m³/h | 75 cm | DN 70 |
| 1½“ | 20.52 m³/h | 75 cm | DN 100 |
| 2“ | 34.92 m³/h | 100 cm | DN 100 |




*½“ open mains water outlet*

*Straight design, with ¾“, 1“,1½“, 2“ versions*

| Open mains water outlet | Item No. |
|---|---|
| ● ½“ | TW 9901 |
| ● ¾“ | TW 9909 |
| ● 1“ | TW 9903 |
| ● 1½“ | TW 9905 |
| ● 2“ | TW 9907 |

| Components/spare parts | Item No. |
|---|---|
| Stainless-steel tundish with nozzle | |
| ● ½“ | TW 9902 |
| ● ¾“ | TW 9910 |
| ● 1“ | TW 9904 |
| ● 1½“ | TW 9906 |
| ● 2“ | TW 9908 |

**Economical mains water top-up**
**thanks to 4 cm (1.6 in.) switching cycle!**

| Float switch for mains water top-up (yellow) | Item No. |
|---|---|

Float switch for controlling top-up with mains water. For attachment to the inlet pipe or the submersible pump. The switch lever defines the switching points so precisely that the water level rises by only 4 cm (daily requirement for single-family home). Switch lever and retaining clamp (for pipe diameter of 110 – 130 mm / 4 – 5 in.) made of stainless steel. Float housing (yellow), butt-spliced, made of polypropylene.
With flexible connecting cable 3 x 1 mm². *(without adapter plug).*

| | |
|---|---|
| ● with 3 m (9.8 ft.) connecting cable | SS 1001 |
| ● with 10 m (32.8 ft.) connecting cable | SS 1002 |
| ● with 20 m (65.6 ft.) connecting cable | SS 1003 |

| Components/spare parts | Item No. |
|---|---|

Float switch *(mains top-up)*,
*without switch lever and clamp*

| | |
|---|---|
| ● with 3 m (9.8 ft.) connecting cable | SS 1021 |
| ● with 10 m (32.8 ft.) connecting cable | SS 1022 |
| ● with 20 m (65.6 ft.) connecting cable | SS 1023 |

| Float switch for dry run protection (red) | Item No. |
|---|---|

Float switch to turn off pump when water level in tank is too low. For attachment to the inlet pipe or the submersible pump. When the water level in the tank reaches the minimum required level again, the pump is released for operation again by the float switch. With switch lever for precise definition of switching points, with 4 cm (1.6 in.) switching cycle. Switch lever and retaining clamp (for pipe diameter of 110 – 130 mm / 4 – 5 in.) made of stainless steel. Float housing (red), butt-spliced, made of polypropylene.
With flexible connecting cable 3 x 1 mm². *(without adapter plug).*

| | |
|---|---|
| ● with 3 m (9.8 ft.) connecting cable | SS 1011 |
| ● with 10 m (32.8 ft.) connecting cable | SS 1012 |
| ● with 20 m (65.6 ft.) connecting cable | SS 1013 |

| Components/spare parts | Item No. |
|---|---|

Float switch *(dry run protection)*,
*without switch lever and clamp*

| | |
|---|---|
| ● with 3 m (9.8 ft.) connecting cable | SS 1031 |
| ● with 10 m (32.8 ft.) connecting cable | SS 1032 |
| ● with 20 m (65.6 ft.) connecting cable | SS 1033 |

**Quick to install:**
**Float switches can be safely fitted to the pump housing of the Multigo submersible pressure pump!**

| Accessories | Item No. |
|---|---|
| ● Adapter plug for connection of float switch control cable | SS 0149 |

# High-flexibility suction hoses

**Suction hose with push-fit connections**

High-flexibility suction hose in pre-cut lengths for pumping water. Made of polyurethane *(PU)* with integral steel spiral. Maximum vacuum -0.8 bar (-11.6 psi). Both ends with push-fit connection to fit 1" hose nozzles (DN 25).

| Suction hoses | Item No. |
|---|---|
| Suction hose in pre-cut lengths | |
| ● Length 0.75 m (2.5 ft.) | AS 3001 |
| ● Length 1.00 m (3.3 ft.) | AS 3002 |
| ● Length 1.50 m (5 ft.) | AS 3003 |
| ● Length 2.00 m (6.5 ft.) | AS 3004 |
| ● Length 2.50 m (8 ft.) | AS 3005 |
| ● Length 3.00 m (9.8 ft.) | AS 3006 |

# Hose couplings

Hose couplings made of stainless steel.

| Hose coupling | Item No. |
|---|---|
| ● Double-ended hose coupling, each end 1" | SV 1000 |

| Hose nozzle | Item No. |
|---|---|
| with non-return valve | |
| ● 1"nozzle, direction of flow from thread to nozzle | ST 1010 |
| ● 1¼" nozzle, direction of flow from thread to nozzle | ST 1011 |
| Without non-return valve | |
| ● 1" nozzle | ST 1100 |

# Suction and pressure hoses

*Suction and pressure hose*

Spiral suction and pressure hose with synthetic reinforcing and spring steel spiral. The suction and pressure hose is suitable for pumping water. Material: PVC Compound (synthetic granulate); free of pores and smooth; abrasion-resistant, weatherproof, ozone-resistant, resistant to ageing. Max. temperature resistance from -25°C to + 60°C. Max. vacuum -0.8 bar. Maximum pressure 12 bar.

| Suction hose | | Item No. |
|---|---|---|
| ● 1" | by the meter | AS 2003 |

| Suction and pressure hose | | Item No. |
|---|---|---|
| ● 1¼" | by the meter | AS 2004 |
| ● 1½" | by the meter | AS 2006 |
| ● 2" | by the meter | AS 2007 |

*1" Pressure hose*

Pressure hose made of EPDM. For pumping water. Flexible, with synthetic textile reinforcing of high tensile strength.

| Pressure hose | | | Item No. |
|---|---|---|---|
| ● 1" | by the meter | max. operating pressure 15 bar (290 psi) | DS 2003 |

# Pressure hose assemblies

*VD 99 28*

*VS 99 53*

Connecting hoses with stainless-steel braiding and pressed fittings. Brass connections. Flat-sealing.

| Connecting hoses | Item No. |
|---|---|
| ● 1” connecting hose, 1” nipple, 1” union nut | |
| Length 0.5 m (1.6 ft.) | VD 9928 |
| Length 0.75 m (2.5 ft.) | VD 9929 |
| Length 1.0 m (3.3 ft.) | VD 9930 |
| Length 1.50 m (5.0 ft.) | VD 9931 |
| Length 2.00 m (6.6 ft.) | VD 9932 |
| ● ¾“ connecting hose, length 0.5 m (1.6 ft.) with 90° elbow, 1“ union nut and ¾“ nipple | VD 9934 |
| with ¾” union nut and ¾“ nipple | VD 9950 |
| with 2 x 1“ union nut | VD 9951 |
| with1” union nut and ¾“ nipple | VD 9953 |
| ● ¾” connecting hose with ¾” ball valve, 1” union nut and ¾” inside thread, length 0.5 m (1.6 ft.) | VS 9953 |
| ● 1” connecting hose with 2 x 1“ union nut, length 0.5 m (1.6 ft.) | VD 9935 |
| ● ½” connecting hose with ½ “ union nut and ½” nipple, length 0.5 m (1.6 ft.) | VD 9936 |

# Flexible tubes and connecting parts

*WD 2000 / WD 2001*

**For fast, easy and inexpensive installation.**
All parts are connectable.

| Flexible tubes | Item No. |
|---|---|
| Flexible tube (PE) flexible with draw cord. Inside diameter = 40 mm (1.57 in.), outside diameter = 50 mm (1.97 in.) | |
| ● 25 m (82 ft.) roll | WD 2000 |
| ● 50 m (164 ft.) roll | WD 2001 |

*WD 2020*

| Connecting parts | Item No. |
|---|---|
| ● Adapter flexible tube – sewer pipe *(PE)* ), to connect the DN 50 flexible tube (for example for mains water top-up) to DN 100 sewer pipe. | WD 2020 |

*WD 2021*

| | |
|---|---|
| ● Adapter flexible tube – HT *(PE)* tube, to connect the DN 50 flexible tube to DN 50 HT tube. D =50 | WD 2021 |

*WD 2010*

| | |
|---|---|
| ● Flexible tube connector *(PE)*, connects two DN 50 flexible tubes together. | WD 2010 |

| PE connectors | Item No. |
|---|---|
| ● PE tube connectors, made of brass. To connect PE tube to hose. | |


*PR 1016*


*PR 1011*


*PR 1015*


*PR 1010*

| | |
|---|---|
| PE tube connector, 90°, 32 mm x 1“ nozzle | PR 1016 |
| PE tube connector, 90°, 32 mm x 1“ inside thread | PR 1011 |
| PE tube connector, straight, 32 mm x 1“ nozzle | PR 1015 |
| PE tube connector, straight, 32 mm x 1“ inside thread | PR 1010 |

# Wall and tube bushings


*WD 110*


*WD 110/2*


*WD 110 with 2-piece plate*

NEW


*WD 100*

Seals ducts at cable and pipe penetration points through tank and building walls. Consists of a 30 mm (1.2 in.) thick rubber disk with two stainless-steel plates and clamp bolts. With integrated electric cable seal. Can be used only for „non-pressurized“ water. The designations WD 100, WD 110 refer in each case to the outside diameter of the wall duct.

▶ *When a standard sewer pipe with DN 100 is used, the wall bushing WD 100 fits exactly into the pipe and the wall bushing WD 110 into the collar.*

| Wall bushings | Item No. |
|---|---|
| ● Wall bushing WD 110 contains two bores: | |
| 1 x dia. 50 mm (2 in.), for cable conduit, for max. three electric cables<br>1 x dia. 32 mm (1 ¼”), for pressure or suction line (1“ PE pipe) | WD 1110 |
| ● Wall bushing WD 110/2 contains six bores: | |
| 1 x 50 mm (2 in.) diameter, for mains water top-up pipe<br>1 x 36 mm (1.4 in.) diameter, for pressure or suction line (1” PE tube)<br>3 x 10 mm (0.4 in.) diameter for electric cable<br>1 x 6 mm (0.2 in.) diameter for electric cable | WD 2110 |
| ● Wall bushing WD 110, with 2-piece plate:<br>for retro-installation with existing pipework. The steel plates consist in each case of two halves, cables and tubes can be inserted through the rubber plate.<br>1 x 50 mm (2 in.) diameter, for mains water top-up pipe<br>1 x 36 mm (1.4 in.) diameter, for pressure or suction line (1” PE tube)<br>3 x 10 mm (0.4 in.) diameter for electric cable<br>1 x 6 mm (0.2 in.) diameter for electric cable | WD 2100 |
| ● Wall bushing WD 100 contains four bores: | |
| 1 x 36 mm (1.4 in.) diameter, for pressure or suction line (1” PE tube)<br>2 x 10 mm (0.4 in.) diameter for electric cable<br>1 x 6 mm (0.2 in.) diameter for electric cable | WD 1100 |

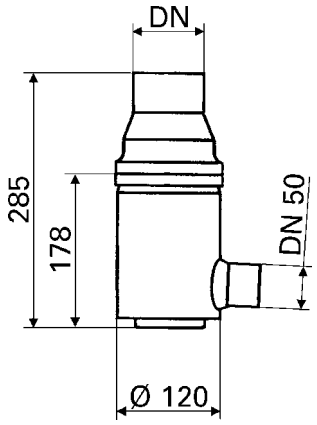
# Tank seal

Seals sewer pipe at penetration points, e.g. in rainwater storage tanks. For wall thickness 5 – 16 mm (0.2 – 0.6 in.) or 5 – 10 mm (0.3 – 0.4 in.), diameter DN 100 (3.9 in.), to fit bore hole diameter 127 mm (5 in.).

| Tank seal | Item No. |
|---|---|
| ● for tank wall thickness 5 - 16 mm (0.2 – 0.6 in.) | RS 1050 |

# Garden rainwater collector (GRS)


*Garden rainwater collector (GRS)*



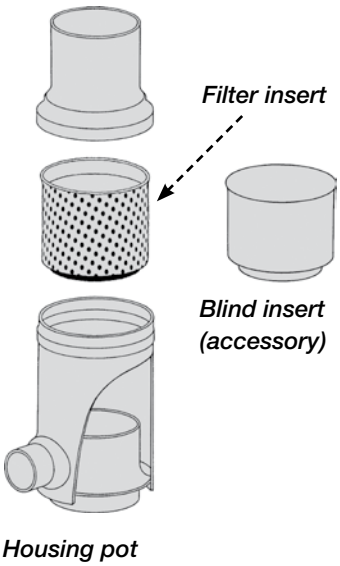

**With automatic overflow protection, frost-proof, made of stainless steel.**

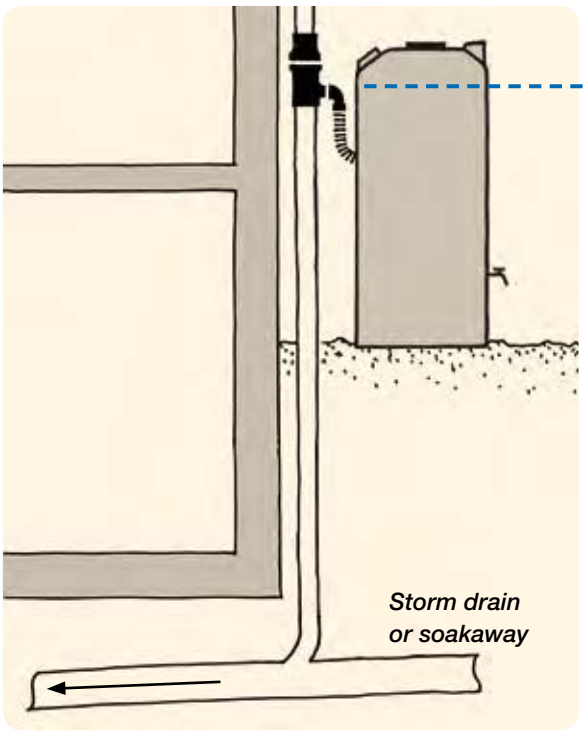
Specially designed for garden rainwater barrels. For installation in rainwater downspouts/ downpipes. Made entirely of stainless steel. Outlet to rainwater barrel: DN 50.
Drainage safety according to DIN EN 12056 / EN 752, complies with DIN 1989.

▶ *Available with or without filter insert (mesh size 0.44 mm (0.02 in.)*
*Extremely low-maintenance filter insert. Can simply be cleaned in a dishwasher.*

| Garden rainwater barrel | | Item No. |
|---|---|---|
| *For metal downspouts / downpipes* | | |
| ● with filter insert, height 10.5 cm (4 in.) | | |
| GRS 100 VA for nominal size (DN) | 100 (3.9 in.) | 15711 |
| GRS 87 VA for nominal size (DN) | 87 (3.4 in.) | 15712 |
| GRS 80 VA for nominal size (DN) | 80 (3.1. in.) | 15713 |
| GRS 76 VA for nominal size (DN) | 76 (2.9 in.) | 15714 |
| ● without filter insert | | |
| GRS 100 VA for nominal size (DN) | 100 (3.9 in.) | 15701 |
| GRS 87 VA for nominal size (DN) | 87 (3.4 in.) | 15702 |
| GRS 80 VA for nominal size (DN) | 80 (3.1. in.) | 15703 |
| GRS 76 VA for nominal size (DN) | 76 (2.9 in.) | 15704 |
| *For plastic downspouts / downpipes* | | |
| ● with filter insert, height 10.5 cm (4 in.) | | |
| GRS 110 VA for nominal size (DN) | 100 (3.9 in.), with outside diameter 110 mm (4.3 in.) | 15715 |
| GRS 76 VA for nominal size (DN) | 70 (2.8 in.), with outside diameter 75 mm (3 in.) | 15714 |
| ● without filter insert | | |
| GRS 110 VA for nominal size (DN) | 100 (3.9 in.), with outside diameter 110 mm (4.3 in.) | 15705 |
| GRS 76 VA for nominal size (DN) | 70 (2.8 in.), with outside diameter 75 mm (3 in.) | 15704 |

| Components/spare parts/accessories | Item No. |
|---|---|
| ● Filter insert of stainless steel, fits all nominal sizes.<br>Filters the rainwater from the roof. Height 10.5 cm (4 in.)<br>Mesh size 0.44 mm (0.02 in.) | 15801 |
| ● Blind insert of stainless steel, fits all nominal sizes.<br>Ensures direct flow of rainwater into storm drain. | 15802 |



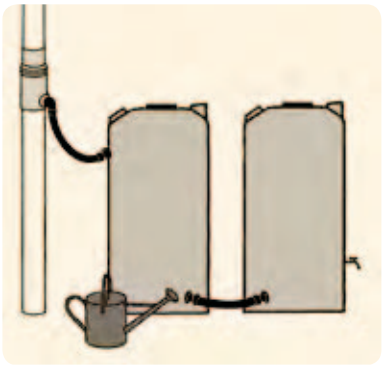

**With automatic overflow protection**

**For collecting rainwater.** Tanks manufactured without seams from environmentally friendly and physiologically harmless polyethylene.

The solid wall thickness guarantees long life and frost resistance.

The storage volume of a Stabilix barrel of 500 l (US: 132 gallons) can be enlarged by connecting an optional number of Stabilix rainwater barrels to form one unit. The opaque colour (dark green) prevents the formation of algae. *The cover closes tightly to prevent flying insects from laying eggs inside the barrel.*

The rainwater barrel has a connection for a watering can tap and a free standing external pump. Thanks to its compact dimensions (dia. 70 cm / 27.6 in.), the Stabilix garden rainwater barrel fits through any standard basement door and can be used in the utility area.



| **Models** | **Item No.** |
|---|---|
| ● *Stabilix 1 rainwater barrel*<br>Rainwater collector inlet with seal for inlet connection 1 ¼“, with blind plug, suitable for connecting hose 15803, pump connection/drain outlet ¾“ inside thread with ¾“ sealing plug,with prepared tap connection for watering can ¾“ (tap optional), rainwater barrel with screw cover DN 400 | GT 5100 |

| **Accessories for Stabilix rainwater barrel** | **Item No.** |
|---|---|
| ● ¾“ drain tap | ZH 0402 |
| ● Rainwater barrel connecting hose, 1¼“.<br>Connects the garden rainwater filter/collector with a rainwater barrel. UV-resistant plastic spiral hose, length 42 cm (12.5 in.), with tension ring. | 15803 |
| ● Rainwater barrel link hose, 1¼“.<br>For connecting two rainwater barrels. UV-resistant plastic spiral hose, length 42 cm (12.5 in.). | 15804 |

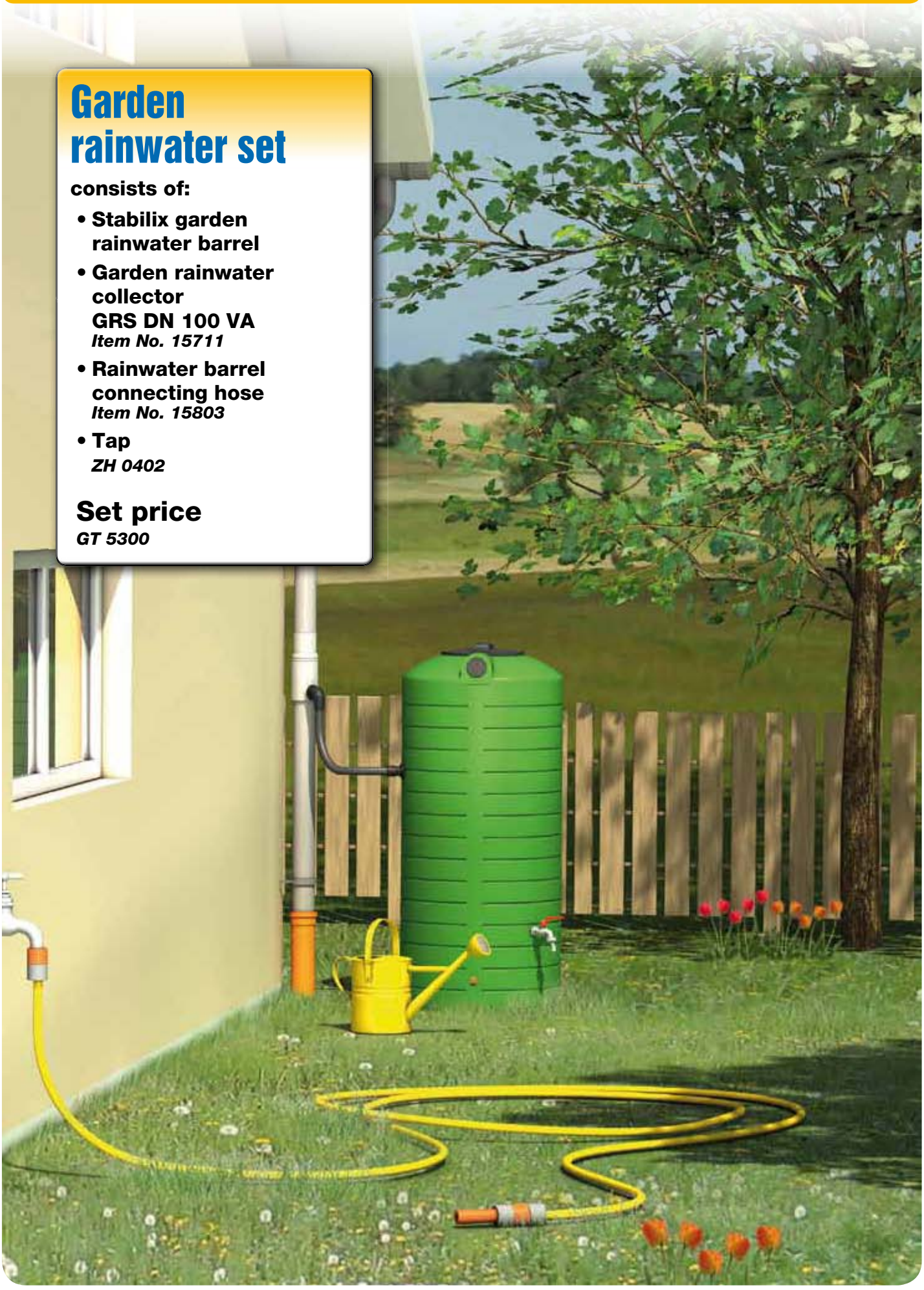
| **Connecting parts for rainwater barrels** | **Item No.** |
|---|---|
| ● Tank connector, 1 ¼ “, for connecting the hose directly to the barrel.<br>Straight<br>90° angle | <br>15805<br>15806 |
| ● Hose coupling, for connection of two hoses. | 15807 |
| ● Tank connector, 1¼“,<br>*suitable for tank wall thickness of at least 7 mm.*<br>For use with straight or angled adapters. | 15808 |
| ● Adapters 1 ¼” for tank connector 15808.<br>Straight<br>90° angle | <br>15809<br>15810 |

15803

15804

15805 15806 15807

15808 15809 15810



# Garden rainwater set

**consists of:**

- **Stabilix garden rainwater barrel**
- **Garden rainwater collector GRS DN 100 VA**
  ***Item No. 15711***
- **Rainwater barrel connecting hose**
  ***Item No. 15803***
- **Tap**
  ***ZH 0402***

## Set price

***GT 5300***

*Beta 1200*

*Beta 1000*

*with direct suction*

A submersible pump for pumping clean water for garden and landscaping applications. Normal priming, multi-stage submersible pressure pump **with integrated, intelligent control system** – a sensor monitors water requirements, controls the pump electronically and provides dry run protection. Alternative models with 1" nozzle or 1 ¼" (inside thread) suction inlet for connecting floating suction filters.
With 3 m (9.8 ft.) lifting strap and 15 m (49.2 ft.) connecting cable.

| Beta | Maximum delivery rate | Maximum delivery head | Connection suction end | Connection discharge end |
|---|---|---|---|---|
| 1000 | 95 l/min. | 36.0 m (118.1 ft.) | Direct suction | 1" inside thread/ UA* |
| 1000T | 95 l/min. | 36.0 m (118.1 ft.) | 1" nozzle | 1" inside thread/ UA* |
| 1000S | 95 l/min. | 36.0 m (118.1 ft.) | 1" inside thread | 1" inside thread/ UA* |
| 1000X | 95 l/min. | 36.0 m (118.1 ft.) | 1¼" inside thread | 1" inside thread/ UA* |
| 1200 | 95 l/min. | 48.0 m (157.5 ft.) | Direct suction | 1" inside thread/ UA* |
| 1200T | 95 l/min. | 48.0 m (157.5 ft.) | 1" nozzle | 1" inside thread/ UA* |
| 1200S | 95 l/min. | 48.0 m (157.5 ft.) | 1" inside thread | 1" inside thread/ UA* |
| 1200X | 95 l/min. | 48.0 m (157.5 ft.) | 1¼" inside thread | 1" inside thread/ UA* |

**UA = Universal connection (1" outside thread, ¾" outside thread, nozzle 19 mm/0.75 in.)*

| Submersible garden pumps | Item No. |
|---|---|
| ● Beta 1000 | GP 5010 |
| ● Beta 1000T | GP 5050 |
| ● Beta 1000S | GP 5040 |
| ● Beta 1000X | GP 5055 |
| ● Beta 1200 | GP 6010 |
| ● Beta 1200T | GP 6050 |
| ● Beta 1200S | GP 6040 |
| ● Beta 1200X | GP 6055 |

▶ *Accessories: For suction connections, see page 51 and ff., pressure hoses see page 51 and fittings/spare parts see pages 58-60*

## The floating suction filter is ideal for use with the Beta pump

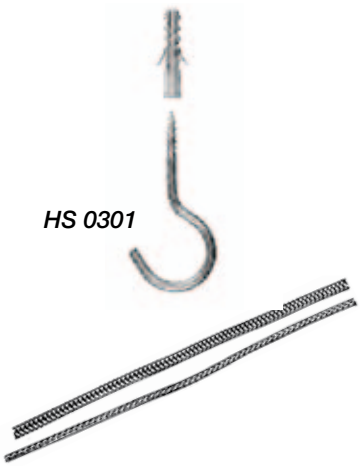
*Floating fine suction filter SAFF*

*Beta 1000X/1200X*
*With 1 ¼" connection (model X)*
*or Beta 1000S/1200S*
*1" connection (model S)*
*for the connection of a floating suction filter*

*Beta 1000T/1200T*
*Submersible garden pump with 1" nozzle for the connection of a floating suction filter*

| Set with floating fine suction filter SAFF | Item No. |
|---|---|
| ● Set for submersible pumps with 1" nozzle<br>SAFF 1", high-flexibility hose 1" | SS 9935 |
| ● Set for submersible pumps with 1 ¼" inside thread connector<br>SAFF 1", high-flexibility hose 1", with screw connection | SS 9931 |
| ● Set for submersible pumps with 1 ¼" inside thread connector<br>SAFF 1 ¼ ", suction hose 1 ¼", with screw connection | SS 9932 |

*The floating suction filters are also available as floating coarse suction filters SAGF, see pages 36-39*




| Hook with screw thread | Item No. |
|---|---|
| ● Stainless-steel hook, plastic expansion dowel. To fix pump lifting straps in concrete or plastic storage tanks. | |
| M6 hook | HS 0301 |

| Carrying and lifting strap | Item No. |
|---|---|
| ● Polypropylene strap, dia. 5 and 8 mm, for attachment to submersible pumps and floating filters. Rot-proof. | |
| 5 mm (0.2 in.) diameter, *per m* | TS 3001 |
| 8 mm (0.3 in.) diameter, *per m* | TS 3002 |
| ▶ *Can be cut to required length* | |

| Spring safety hook | Item No. |
|---|---|
| ● Stainless-steel spring safety hook, 6 x 60 mm (0.2 x 2.4 in.) | KB 0300 |

| Hose connectors | Item No. |
|---|---|
| ● 2-part brass hose connector, flat sealing | |
| 1“ nozzle, 1¼“ union nut | ZV 0414 |
| 1“ nozzle, 1“ union nut | ZV 0462 |
| 1¼“ nozzle, 1¼“ union nut | ZV 0463 |
| 1½“ nozzle, 1½“ union nut | ZV 0464 |
| 2“ nozzle, 2“ union nut | ZV 0465 |

| Hose nozzles | Item No. |
|---|---|
| ● 1-part brass hose nozzle, with hexagon flange | |
| ½” nozzle, ½” outside thread | ZV 0431 |
| ¾” nozzle, ¾” outside thread | ZV 0432 |
| 1” nozzle, 1” outside thread | ZV 0433 |
| 1“ nozzle, 1 ¼” outside thread | ZV 0415 |
| 1¼“ nozzle, 1 ¼” outside thread | ZV 0434 |
| 1½“ nozzle, 1 ½” outside thread | ZV 0435 |
| 2” nozzle, 2” outside thread | ZV 0436 |

| Nipples | Item No. |
|---|---|
| ● Brass double nipple, 2 x outside threads, with hexagon flange | |
| ½“ | ZN 0410 |
| ¾“ | ZN 0409 |
| 1“ | ZN 0402 |
| 1¼“ | ZN 0401 |
| ● Brass reducing nipple, 2 x outside threads, with hexagon flange | |
| ½“, ¾“ | ZN 0405 |
| ¾“, 1“ | ZN 0404 |
| 1“, 1¼“ | ZN 0403 |
| ● Brass reducing nipple, 1 x inside thread, 1 x outside thread with hexagon flange | |
| ½“ inside thread, ¾“ outside thread | ZN 0408 |
| ¾“ inside thread, 1“ outside thread | ZN 0407 |
| 1“ inside thread, 1¼“ outside thread | ZN 0406 |

*1“ (1 inch) = 25.4 mm*

ZV 04 51 ZV 04 52

## Standpipe connectors — Item No.

- 3-part brass connector with outside thread, flat sealing, 1” nozzle, 1” outside thread — ZV 0451
- 3-part brass connector with inside thread, flat sealing, 1” nozzle, 1” inside thread — ZV 0452

## Hose clamps — Item No.

- Stainless-steel hose clamps, clamp width 12 mm (0.5 in.).

| *Inch* | *Clamping range* | |
|---|---|---|
| ½“ | 16 – 22 mm (0.6 – 0.9 in.) | SS 0301 |
| ¾“ | 22 – 30 mm (0.9 – 1.2 in.) | SS 0302 |
| 1“ | 30 – 40 mm (1.2 – 1.6 in.) | SS 0303 |
| 1¼“ | 35 – 50 mm (1.4 – 1.9 in.) | SS 0304 |
| 1½“ | 45 – 60 mm (1.8 – 2.4 in.) | SS 0305 |
| 2“ | 55 – 70 mm (2.2 – 2,8 in.) | SS 0306 |

## Drain tap — Item No.

- Brass drain tap with hose nozzle, union nut and removable square spanner.
  - ½“ tap — ZA 0401
  - ¾“ tap — ZA 0402

## Ball valves/dirt traps — Item No.

- Brass full-bore ball valve, ¼” drain valve and extra ¼” connection for pressure gauge. Aluminium lever.
  - ¾“ inside thread — ZK 0402
  - 1“ inside thread — ZK 0403
- Brass full-bore ball valve. Aluminium lever.
  - ¾“ inside thread — ZK 0412
  - 1“ inside thread — ZK 0413
- Brass full-bore ball valve with dirt trap, stainless-steel strainer, mesh size 0.65 mm (0.03 in.), aluminium lever.
  - ½“ inside thread — ZK 0421
  - ¾“ inside thread — ZK 0422
  - 1“ inside thread — ZK 0423

## Solenoid valve — Item No.

- Brass solenoid valve, forced servo membrane control valve, operates without pressure difference. 230 V, 1.50 m (5 ft.) connecting cable, electric plug.

| | | |
|---|---|---|
| ½“ inside thread | Nominal size 13 mm | MV 0401 |
| ¾“ inside thread | Nominal size 20 mm | MV 0402 |
| 1“ inside thread | Nominal size 20 mm | MV 0403 |

# Fittings, spare parts

| Pressure gauge | Item No. |
|---|---|
| ● Pressure gauge, 0 – 10 bar (0 - 145 psi), 63 mm (2.5 in.) diameter, ¼” brass connection at rear. For connection to ball valves ZK 04 02, ZK 04 03. Pressure gauge | ZZ 99 02 |

| Water meter | Item No. |
|---|---|
| ● Surface-mounted water meter, brass housing with 2 x 1” outside threads, counter module with transparent cover, rotatable through 360°, for horizontal or vertical installation. Officially approved and calibrated. | WA 98 00 |
| ● Connection for water meter, brass screw connectors, 1” union nut, ¾” outside thread. 2 units | WA 98 01 |
| ● Connection for water meter, red brass screw connector, 1” union nut, ½” inside thread. 1 unit | WA 98 02 |

# Cable coupling sets

*Cable coupling set IP 68*

Cable coupling sets for water-pressure-tight connection of flexible electric cables in rainwater storage tanks, e.g. for submersible pump installations.

▶ *Degree of protection IP 68 for long-term submersed application.*

| Cable coupling sets IP 68 | Item No. |
|---|---|
| ● Cable coupling set with electric plug and coupling, each with sealed cover | KV 30 01 |

*Cable coupling set (5-pin)*

| | |
|---|---|
| ● Cable coupling set (5-pin) with terminal block | KV 30 00 |

*System cable coupling set IP 67*

System cable coupling set, waterproof cable coupling with two system plugs with screw connections and contact/safety coupler.

For connection of flexible electric cables in rainwater storage tanks, e.g. for submersible pump installations.

▶ *Degree of protection IP 67 for short-term submersed applications, e.g. suitable for installation in storage tank access shaft.*

| Cable coupling set IP 67 | Item No. |
|---|---|
| ● System cable coupling set, IP 67 | KV 30 20 |

| Accessories | Item No. |
|---|---|
| ● Flexible cable 3 x 1.5 mm², specifically for cable coupling sets, *can be cut to length on request, price per m* | KV 30 05 |


*Label for utility room*

For proper labelling of rainwater pipework and system components (according to DIN 1988). To ensure clear identification and prevent cross connections during expansion, modification or repair work.

| **Label for utility room** | **Item No.** |
|---|---|
| ● Made of laminated paper with water-based coating, white. For utility room. Size: W 208 x H 146 mm (8.19 x 5.75 in.) | |
| 10 units | ZS 4001 |


*Label for toilet*

| **Toilet label** | **Item No.** |
|---|---|
| ● Self-adhesive label made of PE film, wipe-resistant laminated surface, transparent. For toilet flushing system. Size: W 100 x H 56 mm (3.94 x 2.20 in.) | |
| 10 units | ZS 1003 |


*Water extraction point label*

| **Label for extraction points** | **Item No.** |
|---|---|
| ● Self-adhesive label made of PE film, weather-resistant laminated surface, white. For rainwater extraction points. Size: W 100 x H 56 mm (3.94 x 2.20 in.) | |
| 10 units | ZS 1013 |


*Rainwater label*

| **Rainwater label** | **Item No.** |
|---|---|
| ● Self-adhesive, cast-coated paper label. Green/white For exposed pipes indoors. Size: W 68 x H 20 mm (2.68 x 0.79 in.) | |
| 10 units | ZS 4013 |


*Underground pipework tape*

| **Underground pipework tape** | **Item No.** |
|---|---|
| ● Underground pipework tape made of weather-resistant PE film. Green/white, for marking underground pipes. Width: 40 mm (1.57 in.) | |
| Roll: 250 m (820.25 ft.) | ZS 1021 |

| **Labelling set** | | **Item No.** |
|---|---|---|
| ● Labelling set (not illustrated), contains all the labels required for a household. Consists of: | | |
| 01 unit | Utility room label | |
| 05 units | Toilet label | |
| 05 units | Extraction point label | |
| 10 units | Rainwater label | |
| 10 m (32.81 ft.) | Underground pipework tape | ZS 5000 |

# Terms of sales, supply and payment

**1. General**

Our supplies are solely based on the following terms of sales, supply and payment. Additions of a buyer only become effective with our explicit agreement.

**2. Offer, conclusion of a contract, writing**

2.1. All terms of a contract have to be specified finally in writing. Verbal special agreements do not become part of the contract.

2.2. Our offers are always without obligation. After the buyer places the order, the contract will be reached by the supply and/or by our written confirmation of order, if desired by the buyer.

**3. Prices, terms of delivery**

3.1. Supplies for which not expressly fixed prices are agreed upon, are charged in Euros at the list price which is valid on the day of the delivery.

3.2. Our prices and the supplies are ex works Kefenrod plus the value added tax prescribed by law. Packing and transport costs and other additional expenses are charged to the buyer.

**4. Terms of payment, compensation, retention**

4.1. If not paid by cash on delivery, our invoices have to be paid within 30 days without any discount. If payment is received by WISY within 10 days of the invoice date, the buyer is entitled to deduct a 2% discount. Agreed cash discount is only permitted if the buyer has paid all overdue invoices or pays those at the same time.

4.2. If the fixed payment periods are exceeded, we are entitled to claim default interest starting from first day of delay at rate of 5% over the respective basic interest rate of the European central bank and expenses without proof. The proof of further damage remains reserved to us.

4.3. Bills of exchange are taken by us only with a special agreement. All expenses and other costs are charged to the buyer. The taking in of bills of exchange and cheques takes place always only in execution.

4.4. If a substantial degradation of the financial circumstances of the buyer happens, we are entitled to refuse further supplies until all of our claims whether due or not, are paid or security for them is given.

4.5. If a substantial degradation of the financial circumstances of the buyer happens, we are entitled to quit all credits of goods and require the immediate payment of all unpaid goods deliveries. The same is valid if the buyer stops his payments, moves for a judicial agreement, files for bankruptcy proceedings, or if he asks for an agreement out of court. The same is valid if the buyer stops his payments, moves for a judicial agreement, files for bankruptcy proceedings, or if he asks for an agreement out of court.

4.6. The buyer can charge or withhold payments only on undisputed or juridical stated demands. In case of the refusal of payments the demand must be based on the same contractual relation.

**5. Delivery and delivery times**

5.1. Periods and dates for delivery are only approximate. We try to deliver as punctually as possible. No claim for damages is entitled to the buyer because of late supply. The execution of delivery presupposes the punctual issue of all necessary permissions and releases as well as the punctual receipt of all documents to be supplied by the buyer. If these conditions are not fulfilled without justifiable reasons, periods and dates extend accordingly.

5.2. The period and/or the date are considered set if the shipment is delivered to the dispatch within the agreed period and/or to the agreed date. If dispatching is delayed for reasons of the buyer's responsibility, the period is considered set if we announced the shipment is ready for delivery to the buyer within the agreed period.

5.3. If the non-compliance of one period or date is due to force majeure or to other unforeseeable obstacles concerning our factory, which are not justifiable from our side or which took place and/or we received knowledge of the situation after the contract conclusion, then the period and/or the date extend appropriately. This is valid also in cases of unforeseeable events, which have an effect on the enterprises of our pre-suppliers and which neither of them nor from us has to be justified.

5.4. If for reasons, which are not due to our responsibility, the delivery does not take place in time or the execution of the delivery is interrupted, disturbed or made more difficult, we can demand replacement of our costs which may result from this.

5.5. Partial deliveries are permissible if they are not expressly contradicted.

**6. Guarantee**

6.1. We guarantee that our deliveries are faultless at the time the transition of the risk in the sense of the legal requirements.

6.2. The rebuke of defect prescribed due to §§ 377 and 378 HGB (duty for investigation and rebuke) is to report in writing immediately, at the latest within 10 days after receipt of the goods at the place of destination.

6.3. In case of a rebuke of defect reported in time or a complaint and an entitled protest the defect products or not as agreed delivered commodities are taken back and replaced by perfect commodities at our expense or, due to our choice, the defects are repaired at our expense.

6.4. In case of absence of an assured characteristic the claim for damages is limited on the commodity value, unless rough fault or intent is given.

6.5. Further claims of guarantee in the sense of the legal requirements are excluded. In the context of the warranty in particular any costs of freight, packing and/or of the installation of the delivered articles are charged to the buyer.

6.6. Goods which are returned for reasons for which WISY bears no responsibility can be accepted after inspection of the returned goods only if the products are unused and are in a visually and technically perfect condition. WISY will always charge 30% of the invoice amount to cover the costs incurred in receiving returned goods.

**7. Retention of title**

We maintain possession of the sold goods (retention commodities) until complete payment is received, including future demands and additional expenses incurred from the current business relation with the buyer.

The buyer is authorized to resell and/or to process the retention commodities following proper business guidelines. For security purposes, the claims against others as a result of reselling are handed over to us by the buyer in total or at the height of the share of our co-ownership. For security purposes - in case of a delay of payment, a termination of payment, a judicial agreement or bankruptcy proceedings - claims against others from the resale at the height of the original invoice amounts are handed over to us, without demand for a special agreement in individual cases.

**8. Folders, designs, models**

8.1. The reproduction of our folders and designs as well as the rebuilding of our models, also partially, is only permitted with our written permission For designs, models and other documents, excluded folders, we reserve ourselves the property and copyright. The data in the folders, designs and models concerning performances, load capacities, dimensions, weights and similar data are noncommittal approximate values. We reserve ourselves modifications in measurement and construction due to further technical development.

8.2. On the date of publication of the valid price list, all previous price lists are fully superseded and made invalid with respect to their pricing, technical descriptions, explanations and quantified data. Only the currently valid price list is legally valid with respect to the price list contents stated above.

**9. Place of delivery, area of jurisdiction**

9.1. The international competence of the German courts is agreed. Place of delivery is Kefenrod, place of jurisdiction is Friedberg. We reserve ourselves however the right to file a suit at the place of the buyer.

9.2. It is valid per the right of the Federal Republic of Germany.

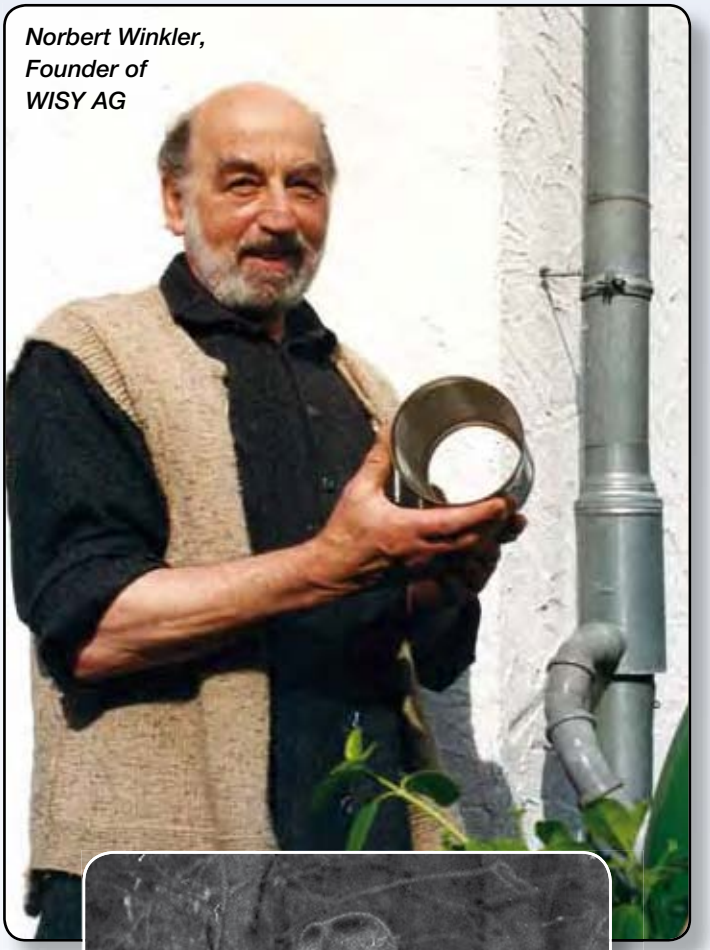
**10. Final clauses**

10.1. In case of legal inefficacy of individual points, the contract remains obligatory in its remaining parts. Any ineffective regulation has to be replaced by new regulations, which join the desired economic success as good as possible.

10.2. All contractual agreements require writing. Confirmed correspondence is sufficient.

10.3. In case of doubt German Original Text shall prevail.

January 1, 2014



*Norbert Winkler, Founder of WISY AG*

**The founder of WISY AG, Norbert Winkler, passed away shortly before the company celebrated its 25th anniversary.**

He died on December 28, 2013 at the age of 86 at his home in Kefenrod-Burgbracht.

We would like to take this opportunity to express our gratitude to the man who worked tirelessly throughout his life to build a better and fairer world.


*1963: Winkler participates in a Peace Demonstration. „Instead of Nuclear Weapons give Bread to the World“.*

It was not until he reached retirement age that he founded the WISY AG and succeeded in ensuring that rainwater harvesting is now an accepted feature of building services.

**Products that he developed are now in use everywhere in the world.**

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**For up-to-date information about rainwater harvesting and all our products, please visit: www.wisy.de**

**You can also download specification texts easily from: service.wisy.de**

# Use our rainwater storage tank to advertise your company!

**We can attach a sticker with your company logo to the WISY rainwater storage tank.**


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